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TEXAS AIR MEDICAL SERVICE  
~~LICENSURE THROUGH~~  
~~STATE ACCREDITATION~~  
LICENSURE RULE  
PROGRAM GUIDEBOOK

DRAFT DOCUMENT  
(MAY 2010)

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The preparation of this manual was project led by Alicia Wiren FP-C. It has been based on the foundation of The State of Texas’s Comprehensive Clinical Management Program Guidelines Manual as presented by Leigh Ann Bedrich RN in 2007. It has been produced within the Governor’s EMS and Trauma Advisory Councils Air Medical Committee and brings together best practices from some of our Nations most recognized organizations.

I want to gratefully acknowledge all those who have dedicated their time and professional expertise to the creation of this manual including the clinicians, pilots, medical directors and administrative staff from the Air Medical Providers in the State of Texas.

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## INTRODUCTION AND OVERVIEW

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This manual is designed to help EMS providers understand the Texas State Air Medical Service ~~Texas Accreditation Process~~[Licensure Rule \(TAP\)](#) planning, application and approval processes. It serves as a planning and pre-assessment guide for organizations administering or planning to administer a [Licensure process\(TAP\)](#).

EMS has evolved in Texas from very humble beginnings. The first piece of legislation regarding Texas EMS was passed in about 1943. Article 4590b required a traction splint and a first aid kit and an attendant with eight hours of first aid training to use them. There were no vehicle requirements. The first aid kit was not even defined. It was left to the attorney general to decide that it would consist of 15 simple items such as scissors, bandages and splints. EMS basically remained unchanged until about 1971. At that time the Texas Department of State Health Services' Civil Defense and Traffic Safety Division began offering voluntary ECA (First Responder) training in a twenty-four hour course in their communities. The first air-medical program in Texas was established in Houston in 1976.

The next major legislative change in EMS occurred in 1984 when the Texas legislature passed the first comprehensive EMS Act in Texas and for the first time the “ambulance driver” was required to be an ECA. Fortunately many communities were also training EMTs and a few were even training Paramedics.

In the eighties and nineties Texas adopted Federal Department of Transportation standard curriculums for EMTs as well as modified Federal DOT curriculums for Paramedics, and EMS training began to be offered in various junior colleges around the State.

EMS in Texas continues evolving rapidly. Today’s evolution includes sophisticated trauma systems and the system participants, which includes Air Medical Service providers, which are being called upon to learn more, do more and be more than ever before. The key to continued success is no longer just willingness to serve. The key to success is ongoing improvement and professional development.

The Comprehensive Clinical Management Program (CCMP) was the next step in the evolution of EMS in Texas. Even though the CCMP is offered as a “recertification” option, it is truly an EMS provider function. The CCMP is not simply minimum standards that a provider must meet for a state license. It is a voluntary option that EMS providers may attempt in order to raise the bar of clinical and operational competency in their communities. EMS providers that choose to attempt this option are doing so of their own free will and accept the higher standards imposed by a program such as the CCMP.

Building off the great work set forth in the CCMP manual the Air Medical Community in Texas has defined what providers have been expecting for years, proof of a higher level of training and clinical competency of our Air Medical Service Providers and a site survey process to measure that level of training and clinical competency. This

198 verification will be substantiated in the acquisition of CAMTS Accreditation by Air  
199 Medical Service providers in the State of Texas to obtain Deemed Status. The alternative  
200 process to CAMTS accreditation, in order to obtain State Licensure and validate the high  
201 level of care required of an AMP, is the State Air Medical Survey Process  
202 | ([TAPLicensure](#)). The process will be a comprehensive look at the clinical care and  
203 operational standards of a provider holding a Texas State Air Medical Service License.  
204 All components of the Texas State Air Medical Survey process will meet or exceed the  
205 CCMP licensure requirements.

206 |  
207 The following document is a resource for prospective Air Medical Providers (AMP) to  
208 use to prepare their service for the Alternate Survey Process in the State of Texas in lieu  
209 of CAMTS Accreditation. It is a reference document to aid in the success of the Provider  
210 not to dictate the extent or the exact nature of policy that may be necessary for your  
211 service.

212  
213 In this document you will find that the Survey Process is defined, as well as broken  
214 down, into twelve individual sections as listed in the Table of Contents. You will also  
215 note that each section begins with a copy of the State EMS Rule for Air Medical  
216 | Providers [TAPLicensure Rule](#) that you will be evaluated on during your site survey for  
217 your reference. *\*\*\*You are responsible to make sure that you read the most current  
218 Rules offered by DSHS as documents and rules may change.\*\*\** After the Rule you will  
219 note justifications, resources, intent and citations written for every part of the process.

220  
221 Within this document you will also find a list of definitions and reference guides in the  
222 attached Appendixes.

223

## PLANNING AND PREPARATION

### 157.12 Proposed Rule Language – Rotor Wing Operations

(a) The Air Medical Provider seeking licensure through the State of Texas who does not wish to obtain deemed status through Commission on Accreditation of Air Medical Transport Services (CAMTS) Accreditation must acquire ~~Accreditation, and therefore~~ licensure, through the ~~Texas Accreditation Process~~ Licensure Rule (TAP).

(1) Submission of the appropriate application, self assessment and supporting documents must be submitted to DSHS prior to the establishment of a new Air Medical Program.

(A) Initial applicants *may* initiate a pre-survey process with a DSHS-approved surveyor. The surveyor and applicant will undertake an evaluation of the applicant's training, resources and plans concerning Air Medical Operations to assist the program in preparation for the initial TAP Licensure.

(B) Initial applicants will be licensed with a provisional license upon successful completion of the initial TAP Licensure.

(C) A provisional initial license holder must complete a ~~TAP re-accreditation~~ the Licensure survey not less than 12 months or more than 15 months after the initial provisional license issuance.

(D) A provisional initial license holder who successfully completes a ~~TAP re-accreditation~~ the Licensure survey will be awarded regular license status.

(2) Established Air Medical Programs (AMP's) who wish to seek licensure through the ~~Texas Accreditation Process~~ Licensure Rule must complete their survey process and obtain re-licensure within two years after the effective date of the TAP Licensure Rule to remain an Air Medical Provider.

(3) The complete self assessment package with supporting documents will be completed and submitted with the application for provider license to DSHS.

(A) The self assessment, documentation and application must be submitted in electronic format as acceptable by DSHS.

(i) Documentation must include:

(aa) Current FAA Part 135 Air Carrier Certificate.

(bb) Current individual aircraft FAA Airworthiness Certificate(s).

(cc) All other documentation as required to demonstrate evidence of program components.

(A) Associated fees must be included with application.

(B) All program records that support the ASP process must be on site during the site survey.

- 262 (C) Established Air Medical Providers must provide a minimum of 6 months  
263 documented compliance with the ASP requirements prior to the date of  
264 application.
- 265 (D) Application for initial provider license must show documentation of protocols,  
266 policies, procedures, training, Quality Improvement (QI) and evaluation of  
267 outcomes that comply with the ASP requirements.
- 268 (4) Notification of the intent to perform a site visit will be delivered to the AMP 90  
269 days in advance.
- 270 (A) The site visit cannot be delayed by the AMP more than 90 days after intent to  
271 visit date established by DSHS.
- 272 (B) The site visit team will be composed of DSHS department representatives  
273 along with other AMP Personnel which could include but is not limited to:  
274 (i) Physician Medical Director  
275 (ii) AMP Administrator  
276 (iii) AMP Educator  
277 (iv) AMP Nurse or Paramedic  
278 (v) AMP Pilot  
279 (vi) AMP Mechanic  
280 (vii) Federal Aviation Administration (FAA) Representative
- 281 (C) The AMP is responsible for reasonable expenses incurred by Non-DSHS  
282 Department Members conducting the review.
- 283 (5) The site visit team will establish and provide a schedule to the applicant.
- 284 (A) No personnel or program component may be excluded or exempt from  
285 participation in site survey.
- 286 (B) Scheduled activities may include but are not limited to:  
287 (i) Meeting with the AMP Medical Director and Administrator.  
288 (ii) Interviewing staff members.  
289 (iii) Reviewing records.  
290 (iv) Interviewing hospitals and other appropriate regional personnel.  
291 (v) Site visits to bases, offices and communication centers.  
292 (vi) Preparation of initial evaluation in the form of a short oral summary of  
293 what was found by the survey team to AMP by evaluators prior to  
294 completion of survey.  
295 (vii) Programs will provide clarification of evaluation points to  
296 evaluators.
- 297 (C) A copy of the final written report will be mailed to DSHS and the Air Medical  
298 Program Director within 30 days of the completion of the site visit.
- 299 (i) Deficiencies may result in disciplinary action as authorized by §157.16 of  
300 this title (relating to Emergency Suspension, Suspension, Probation,  
301 Revocation or Denial or a Provider License). The department may grant a

- 302 reasonable period of time for the provider to correct deficiencies as  
303 defined in §157.16 . If the department must reinspect the provider because  
304 of noncompliance noted during a previous inspection, the provider shall  
305 pay a nonrefundable administrative fee, if applicable.
- 306 (ii) Failure to correct identified deficiencies within a period of time  
307 determined to be reasonable by the DSHS or if the deficiencies are found  
308 to be repeated, the provider shall be subject to disciplinary actions in  
309 accordance with §157.16 of this title.
- 310 (6) If a provider changes any part of the originally completed survey process it must  
311 be reported to DSHS in writing within (XX) days with an explanation.
- 312 (A) DSHS will evaluate the change and decide if a new site visit is warranted to  
313 assure compliance with the ASP.
- 314 (7) DSHS regional office may perform or order an unannounced site visit at any time.
- 315 (8) Program renewal applications must consist of an update to the original program  
316 self assessment that addresses and documents all changes and updates to the  
317 program.
- 318 (A) DSHS requires an on-site survey to renew a provider license.
- 319 (9) A program may contest, in writing, a site survey result to DSHS no later than 30  
320 days after the receipt of the rejection of application for initial or renewal  
321 licensing.
- 322 (A) Appeals must include either supporting documentation to refute the  
323 deficiencies or provide an acceptable plan of corrective action to correct the  
324 deficiencies.
- 325 (B) Appeals will be reviewed by DSHS with decision delivered within (XX)  
326 calendar days after receipt of appeal.

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329 157.13 Proposed Rule Language – Fixed Wing Operations  
330

- 331 (a) The Air Medical Provider seeking licensure through the State of Texas who does not  
332 wish to obtain deemed status through Commission on Accreditation of Air Medical  
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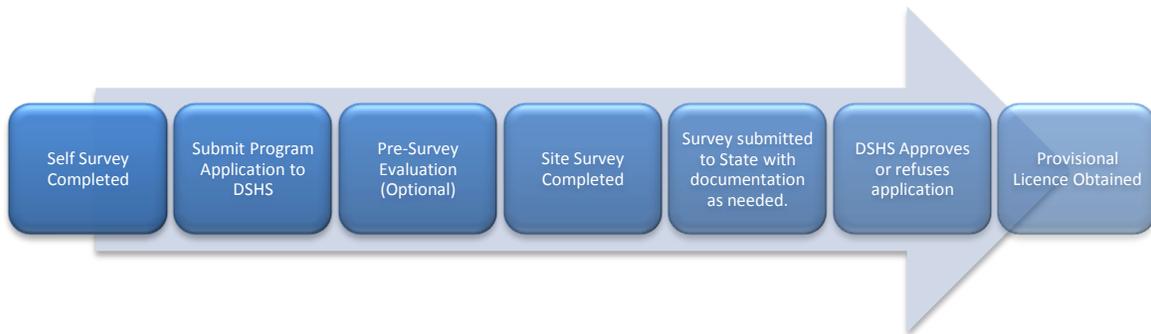
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- 426 deficiencies or provide an acceptable plan of corrective action to correct the
- 427 deficiencies.
- 428 (B) Appeals will be reviewed by DSHS with decision delivered within (XX)
- 429 calendar days after receipt of appeal.

## INITIAL PROVIDER LICENSE APPLICANTS

### APPLICATION PROCESS FLOW AND TIMELINE



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### SUBMITTING A PROGRAM APPLICATION

Anyone who has the desire and dedicated resources necessary to maintain a Provider License as an Air Medical Service and does not wish to obtain CAMTS Accreditation may submit an application for an [TAP License](#) as set forth in rule 157.(XX) The application, self assessment and fee should be submitted to the appropriate DSHS EMS regional office prior to initiating service for new programs. Upon reviewing the initial application and self assessment, a DSHS-approved surveyor will meet with the applicant to begin an evaluation of the applicant’s training, resources, and plans concerning Air Medical management.

### THE APPLICATION – A SELF STUDY

All of the planning and preparation a provider carries out in anticipation of accomplishing the alternative state survey process must be documented in the

455 Application and supporting documents. The application and supporting documents are  
456 intended to be a thorough self assessment of the Air Medical Service Provider and  
457 provide the background material necessary to demonstrate program compliance. The  
458 application and supporting material will be verified during a site visit.

459

460 The application and self study is available on the DSHS website.

461

462 In preparing the application, information must be well organized and in a manner that  
463 clearly indicates the providers willingness and ability to support an Air Medical Service  
464 Program. The application must be submitted in electronic format as acceptable by DSHS.  
465 Please see the Application for exact submission requirements, including the number of  
466 copies to be submitted and the applicable fee.

467

468 After reviewing a complete application, self assessment and supporting documents, the  
469 regional office shall notify the program of deficiencies or, noting none, notify the  
470 provider of the intent to perform a site visit.

471

472 Initial applicants *may* initiate a pre-survey process with a DSHS-approved surveyor. The  
473 surveyor and applicant will undertake an evaluation of the applicant's training, resources,  
474 and plans concerning Air Medical Operations to assist the program in preparation for the  
475 initial [TAP Licensure Accreditation](#).

476

477 Upon review and determination that the application is complete, a letter will be sent to  
478 the Medial Director and the Air Medical Service Provider Administrator to outline the  
479 procedures for setting up a site visit. Such notification shall take place no later than sixty-  
480 days (60) from the submission of a complete self-assessment.

481

482 In addition to addressing all the program components in the application, complete records  
483 must be maintained documenting problems, successes, administrative actions and  
484 program revisions that unfold as the program progresses. The site visit team at the initial  
485 and subsequent site visits will review all files. New applicants must show documentation  
486 of protocols, policies, procedures, QI and evaluation of outcomes to support the  
487 application in all areas along with associated training of all personnel.

488

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#### THE SITE VISIT

491 After the application is approved, the program will be site visited. The DSHS regional  
492 office shall notify the program in writing at least 90 days in advance of the proposed  
493 visit. The program and regional staff or approved contracted surveyors shall agree upon  
494 an appropriate date for the site visit. However, the program will not be allowed to delay  
495 the site visit more than 90 days beyond the date proposed by the Department.

496

497

498 The site visit team will be composed of [a DSHS representative and a department](#)  
499 [representatives along with an such as:](#) Air Medical Service physician medical director,

500 an Air Medical Service provider administrator, and one other personnel member that can  
501 be comprised of an educator, line staff personnel, pilot or FAA representative who is  
502 approved to conduct on-site ~~Alternative State Process~~ review of Air Medical Service  
503 providers. The applicant agency shall be responsible for reasonable expenses incurred by  
504 the non-DSHS Department members conducting the review.  
505

#### 506 TYPICAL SCHEDULE FOR THE SITE VISIT EVALUATION

507 The full exposure of the program to the site visit evaluation team provides the evaluators  
508 with an awareness of both the objective and subjective components of the program. The  
509 site visit team will establish the actual schedule. It may vary to accommodate the  
510 program and its personnel, but it may not exempt any program personnel from  
511 participation and it may not exempt any program component from review.  
512

513 The schedule should include but is not limited to the following program personnel and  
514 types of activities:  
515

- 516 • Meeting with the Air Medical Service medical director and provider administrator  
517 to review the schedule of activities planned for the site visit.
- 518 • Interviewing the provider's staff to obtain general reactions to the program and to  
519 assess the feelings of involvement in the total program initiation. As this is a  
520 comprehensive program, staff of all levels and from all aspects of the provider  
521 (billing, communications, medical care operations, mechanics, pilots etc.) must be  
522 included.
- 523 • Reviewing of records to assess the manner in which the program maintains  
524 records of all aspects of the program.
- 525 • Interviewing hospitals, RAC officers and other appropriate regional.
- 526 • Site visits of bases, equipment and personnel.
- 527 • Preparing an initial report to allow the evaluators to provide a short oral summary  
528 of findings, conclusions, comments, and concerns regarding the program's  
529 compliance with guidelines. Program representatives may respond to this report  
530 and allow for clarification to insure that the final report is reflective of the current  
531 state of the program. (A final written report will be mailed to the program director  
532 within 30 days of the site visit.)
- 533 • The ~~Air Medical Service Alternative Survey~~ AMP Licensure application will  
534 require additional background information about the service area, the agency, and  
535 other related matters. This information will be used to establish context for the  
536 reviewers and assist in preparing them for the site visit. Providing this  
537 information will expedite the site visit and help agencies achieve their goal of  
538 Texas Air Medical Service ~~accreditation~~ Licensure.

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EXISTING AIR MEDICAL PROVIDERS WHO ARE  
BRIDGING TO TAP LICENSURE RELICENSING UNDER  
THE NEW RULE:

544

APPLICATION PROCESS FLOW AND TIMELINE

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SUBMITTING A PROGRAM APPLICATION

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Anyone who has the desire and dedicated resources necessary to maintain a Provider License as an Air Medical Service and does not wish to obtain CAMTS Accreditation may submit an application for an [TAP License](#) as set forth in rule 157.(XX) The application, self assessment and fee should be submitted to the appropriate DSHS EMS regional office prior to initiating service for new programs or within two years after the adoption of the [TAP License Rule](#) for established programs. Upon reviewing the initial application and self assessment, a DSHS-approved surveyor will meet with the applicant to begin an evaluation of the applicant's training, resources, and plans concerning Air Medical management.

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THE APPLICATION – A SELF STUDY

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All of the planning and preparation a provider carries out in anticipation of accomplishing the alternative state survey process must be documented in the Application and supporting documents. The application and supporting documents are intended to be a thorough self assessment of the Air Medical Service Provider and provide the background material necessary to demonstrate program compliance. The application and supporting material will be verified during a site visit.

The application and self study is available on the DSHS website.

In preparing the application, information must be well organized and in a manner that clearly indicates the providers willingness and ability to support an Air Medical Service

573 Program. The application must be submitted in electronic format as acceptable by DSHS.  
574 Please see the Application for exact submission requirements, including the number of  
575 copies to be submitted and the applicable fee.

576

577 After reviewing a complete application, self assessment and supporting documents, the  
578 regional DSHS office shall notify the program of deficiencies or, noting none, notify the  
579 provider of the intent to perform a site visit.

580

581 Initial applicants *may* initiate a pre-survey process with a DSHS-approved surveyor. The  
582 surveyor and applicant will undertake an evaluation of the applicant's training, resources,  
583 and plans concerning Air Medical Operations to assist the program in preparation for the  
584 initial [TAP Licensure Accreditation](#).

585

586 Upon review and determination that the application is complete, a letter will be sent to  
587 the Medial Director and the Air Medical Service Provider Administrator to outline the  
588 procedures for setting up a site visit. Such notification shall take place no later than sixty-  
589 days (60) from the submission of a complete self-assessment.

590

591 In addition to addressing all the program components in the application, complete records  
592 must be maintained documenting problems, successes, administrative actions and  
593 program revisions that unfold as the program progresses. The site visit team at the initial  
594 and subsequent site visits will review all files. Established Air Medical Service programs  
595 applicants must be able to produce documentation that supports the prior six months of  
596 programmatic compliance with the Alternate Survey Requirements.

597

598

#### THE SITE VISIT

599 After the application is approved, the program will be site visited. The DSHS regional  
600 office shall notify the program in writing at least 90 days in advance of the proposed  
601 visit. The program and regional staff or approved contracted surveyors shall agree upon  
602 an appropriate date for the site visit. However, the program will not be allowed to delay  
603 the site visit more than 90 days beyond the date proposed by the Department.

604

605 The site visit team will be composed of department representatives and three other  
606 personnel members that can be comprised of an Air Medical Service physician medical  
607 director, a provider administrator, educator, line staff personnel, pilot or FAA  
608 representative who is approved to conduct on-site Alternative State Process review of Air  
609 Medical Service providers. The applicant agency shall be responsible for reasonable  
610 expenses incurred by the non-DSHS Department members conducting the review.

611

612

#### TYPICAL SCHEDULE FOR THE SITE VISIT EVALUATION

613 The full exposure of the program to the site visit evaluation team provides the evaluators  
614 with an awareness of both the objective and subjective components of the program. The  
615 site visit team will establish the actual schedule. It may vary to accommodate the

616 program and its personnel, but it may not exempt any program personnel from  
617 participation and it may not exempt any program component from review.

618

619 The schedule should include but is not limited to the following program personnel and  
620 types of activities:

621

622 • Meeting with the Air Medical Service medical director and provider administrator  
623 to review the schedule of activities planned for the site visit.

624 • Interviewing the provider’s staff to obtain general reactions to the program and to  
625 assess the feelings of involvement in the total program. As this is a  
626 comprehensive program, staff of all levels and from all aspects of the provider  
627 (billing, communications, medical care operations, mechanics, pilots etc.) must be  
628 included.

629 • Reviewing of records to assess the manner in which the program maintains  
630 records of all aspects of the program.

631 • Interviewing hospitals, RAC officers and other appropriate regional personnel to  
632 assess their relationship with the applicant provider as related to the provision of  
633 adequate patient care, if applicable, for a renewal or established provider.

634 • Site visits of bases, equipment and personnel.

635 • Preparing an initial report to allow the evaluators to provide a short oral summary  
636 of findings, conclusions, comments, and concerns regarding the program’s  
637 compliance with guidelines. Program representatives may respond to this report  
638 and allow for clarification to insure that the final report is reflective of the current  
639 state of the program. (A final written report will be mailed to the program director  
640 within 30 days of the site visit.)

641 • The Air Medical Service Alternative Survey application will require additional  
642 background information about the service area, the agency, and other related  
643 matters. This information will be used to establish context for the reviewers and  
644 assist in preparing them for the site visit. Providing this information will expedite  
645 the site visit and help agencies achieve their goal of Texas Air Medical Service  
646 [accreditationLicensure](#).

647

## PROGRAM APPROVAL

648

649 When the AMP receives the final written report, they have two options. The AMP can  
650 either allow their report to be considered, as is, with their application or they can forward  
651 a copy of the report with additional documentation in support of modifications and  
652 additions made to their program to meet areas of deficiency.

653

654 If the program is found to be in compliance with established criteria and standards, and  
655 all fees and required documents have been submitted, the DSHS shall approve the  
656 program for a period to coincide with the provider's license renewal period and issue an  
657 approval number. The AMP administrator and medical director shall receive a written  
658 report of the site-review team's findings, including areas of exceptional strength, areas of  
659 weakness and recommendations for improvement.

660

661 Approval of the AMP will include all aspects of the Air Medical Service Survey Criteria  
662 which must be maintained at all times. If at any time, a provider agency changes any  
663 aspect of the originally completed survey process it must be reported immediately to the  
664 DSHS regional office with an explanation. An AMP must retain a Medical Director who  
665 meets the qualifications set forth in Section 11 and **Rule 157.11, 157.12 and 157.13.**

666

667 The DSHS office will determine if another site visit is necessary to ensure compliance  
668 with the rule. The DSHS regional office may perform, or contract, an unannounced site  
669 visits at any time.

670

## PROGRAM RE-~~APPROVAL~~LICENSING

671

672 To be eligible for re-~~approval~~licensing, the program shall maintain all the requirements of  
673 this manual, submit an application and non-refundable fee DSHS of \$XXX.00 and  
674 prepare an update to the program's self-assessment that addresses significant changes in  
675 the program's personnel, structure, processes, policies or procedures. A successful site  
676 survey must be accomplished. The agency must also document progress toward  
677 correction of any deficiencies identified by the program or the department and will have  
678 to host another on-site review to have their license renewed.

679

680

## APPEALS PROCESS

681 A program is eligible to contest the site survey results, in writing, through DSHS State  
682 Offices no more than 30 calendar days after receipt of rejection of application for initial  
683 or renewal licensing. Appeals must include supporting documentation of how you meet  
684 or exceed the outlined Air Medical Service Survey expectations or your immediate  
685 corrective actions to accommodate the requirements that are deficient. The appeal will be  
686 reviewed and decision for approval, rejection or temporary approval until the time that  
687 the deficiencies have been validated by additional site visits or documentation as required  
688 by Rule and DSHS. The Air Medical Service Provider will receive written notice within  
689 (XX) of calendar days after receipt of appeal of the decision of DSHS.

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## SECTION 1: CREDENTIALING OF PATIENT CARE PROVIDERS

### 157.12 Proposed Rule Language – Rotor Wing Operations

- (b) The AMP must demonstrate a hiring, education and credentialing process.
  - (1) The AMP should be able to provide a job description for each clinical and operational position.
    - (A) The AMP must document a process by which air medical personnel applicants are screened to insure that they meet the minimum qualifications for the position for which they apply.
    - (2) The AMP must administer an employment application process that includes an assessment of the candidate’s knowledge, skills and experience.
    - (3) After selection for employment, the AMP should have a credentialing process that incorporates the following:
      - (A) A defined preceptor selection process.
        - (i) That involves the Medical Director in the selection of appropriate preceptors.
        - (ii) The Medical Directors approval of the development and training of preceptors.
      - (B) The Medical Directors established clinical competencies.
      - (C) The Program Director established program competencies.
      - (D) New employee proficiency criteria:
        - (i) The new employee must attend an initial didactic training session.
        - (ii) The new employee must demonstrate understanding of aircraft safety, protocols, procedure manuals, and proficiency in clinical procedures to the agency’s standard.
          - (aa) In accommodating airframes, new employees will ride as 3<sup>rd</sup> person until the preceptor establishes that the new employee has met pre-established competencies as defined by the Medical Director and Program Director.
          - (aa) In airframes that cannot accommodate a “third” person, new employees will ride as a 2<sup>nd</sup> person until preceptor establishes that the new employee meets the prerequisites for independent duty as determined by the Medical Director and Program Director.
      - (E) New employees must demonstrate proficiency to second evaluator.
    - (4) New employee clinical evaluation must be completed using:

- 729 (A) A process that allows the new employee to evaluate the new employee  
730 program.
- 731 (B) A process to promote inter-rater reliability.
- 732 (5) A process for remediation and reeducation must be defined.
- 733 (6) A representative sample of call types (minimum number to be determined by the  
734 Medical Director) of critically ill adult patients, pediatric patients and trauma  
735 patients will be correctly cared for by the new employee prior to release from new  
736 employee.
- 737 (7) Must demonstrate loop closure from preceptor to new employee and from new  
738 employee back to preceptor in evaluation.
- 739 (8) The AMP must maintain documentation that employee certifications and/or  
740 licensures are verified.
- 741 (9) The AMP must maintain documentation of a system that requires each patient  
742 care provider to demonstrate skills appropriate for their level of training to the  
743 satisfaction of the Medical Director.
- 744 (10) The AMP must have an established process for reintegration of personnel.
- 745 (11) The AMP must have an established policy for administrative personnel to  
746 remain field credentialed.
- 747 (12) The AMP must at a minimum document initial demonstration of patient  
748 care skills, scene control skills, program competencies, ethics, compliance, and to  
749 include but not be limited to:
- 750 (A) Advanced airway management.
- 751 (B) Altitude physiology.
- 752 (C) Stressors of flight.
- 753 (D) Anatomy and physiology along with assessment of adult, pediatric and  
754 neonatal patients, as appropriate, within the programs scope of care.
- 755 (E) Aircraft and ambulance orientation including safety procedures (for all crew  
756 members including specialty team members).
- 757 (F) Emergency access and egress training.
- 758 (G) Orientation to all emergency procedures.
- 759 (H) Air Medical Service Crew Resource Management including human factors,  
760 stress recognition and management.
- 761 (I) Survival training.
- 762 (J) Cardiac emergencies and advanced cardiac critical care.
- 763 (K) Mission specific education for patient populations encountered (i.e.  
764 environmental emergencies, high risk OB, multi-system trauma, neonatal  
765 emergencies, thermal related injuries, etc.).
- 766 (L) Disaster and triage including Hazardous Materials (Haz-Mat) recognition and  
767 response.

- 768 (M) Radio communications.
- 769 (N) Hemodynamic monitoring, pacemakers (invasive and non invasive),
- 770 automatic implantable cardiac defibrillators, intra-aortic balloon pump, central
- 771 lines, pulmonary artery and arterial catheters, ventricular assist devices and
- 772 extracorporeal membrane oxygenation (ECMO), as appropriate, within the
- 773 programs scope of care.
- 774 (O) Infectious control.
- 775 (P) Mechanical ventilation and respiratory physiology for adult, pediatric and
- 776 neonatal patients, including oxygen therapy in the transport environment.
- 777 (Q) Pediatric medical and trauma emergencies.
- 778 (R) Pharmacology.
- 779 (S) Quality Management education.
- 780 (T) Respiratory emergencies.
- 781 (U) Scene management.

#### 782 157.13 Proposed Rule Language – Fixed Wing Operations

- 783 (b) The AMP must demonstrate a hiring, education and credentialing process.
- 784 (1) The AMP should be able to provide a job description for each clinical and
- 785 operational position.
- 786 (A) The AMP must document a process by which air medical personnel applicants
- 787 are screened to insure that they meet the minimum qualifications for the
- 788 position for which they apply.
- 789 (2) The AMP must administer an employment application process that includes an
- 790 assessment of the candidate's knowledge, skills and experience.
- 791 (3) After selection for employment, the AMP should have a credentialing process that
- 792 incorporates the following:
- 793 (A) A defined preceptor selection process.
- 794 (i) That involves the Medical Director in the selection of appropriate
- 795 preceptors.
- 796 (ii) The Medical Directors approval of the development and training of
- 797 preceptors.
- 798 (B) The Medical Directors established clinical competencies.
- 799 (C) The Program Director established program competencies.
- 800 (D) New employee proficiency criteria:
- 801 (i) The new employee must attend an initial didactic training session.
- 802 (ii) The new employee must demonstrate understanding of aircraft safety,
- 803 protocols, procedure manuals, and proficiency in clinical procedures to the
- 804 agency's standard.
- 805
- 806

- 807 (aa) In accommodating airframes, new employees will ride as 3<sup>rd</sup>  
808 person until the preceptor establishes that the new employee has met  
809 pre-established competencies as defined by the Medical Director and  
810 Program Director.
- 811 (bb) In airframes that cannot accommodate a “third” person, new  
812 employees will ride as a 2<sup>nd</sup> person until preceptor establishes that the  
813 new employee meets the prerequisites for independent duty as  
814 determined by the Medical Director and Program Director.
- 815 (E) New employees must demonstrate proficiency to second evaluator.
- 816 (4) New employee clinical evaluation must be completed using:
- 817 (A) A process that allows the new employee to evaluate the new employee  
818 program.
- 819 (B) A process to promote inter-rater reliability.
- 820 (5) A process for remediation and reeducation must be defined.
- 821 (6) A representative sample of call types (minimum number to be determined by the  
822 Medical Director) of critically ill adult patients, pediatric patients and trauma  
823 patients will be correctly cared for by the new employee prior to release from new  
824 employee.
- 825 (7) Must demonstrate loop closure from preceptor to new employee and from new  
826 employee back to preceptor in evaluation.
- 827 (8) The AMP must maintain documentation that employee certifications and/or  
828 licensures are verified.
- 829 (9) The AMP must maintain documentation of a system that requires each patient  
830 care provider to demonstrate skills appropriate for their level of training to the  
831 satisfaction of the Medical Director.
- 832 (10) The AMP must have an established process for reintegration of personnel.
- 833 (11) The AMP must have an established policy for administrative personnel to  
834 remain field credentialed.
- 835 (12) The AMP must at a minimum document initial demonstration of patient  
836 care skills, scene control skills, program competencies, ethics, compliance, and to  
837 include but not be limited to:
- 838 (A) Advanced airway management.
- 839 (B) Altitude physiology.
- 840 (C) Stressors of flight.
- 841 (D) Anatomy and physiology along with assessment of adult, pediatric and  
842 neonatal patients, as appropriate, within the programs scope of care.
- 843 (E) Aircraft and ambulance orientation including safety procedures (for all crew  
844 members including specialty team members).
- 845 (F) Emergency procedures for depressurization for fixed wing.

- 846 (G) Emergency access and egress training.
- 847 (H) Orientation to all emergency procedures.
- 848 (I) Air Medical Service Crew Resource Management including human factors,
- 849 stress recognition and management.
- 850 (J) Survival training.
- 851 (K) Cardiac emergencies and advanced cardiac critical care.
- 852 (L) Mission specific education for patient populations encountered (i.e.
- 853 environmental emergencies, high risk OB, multi-system trauma, neonatal
- 854 emergencies, thermal related injuries, etc.).
- 855 (M) Disaster and triage including Hazardous Materials (Haz-Mat) recognition
- 856 and response.
- 857 (N) Radio communications.
- 858 (O) Hemodynamic monitoring, pacemakers (invasive and non invasive),
- 859 automatic implantable cardiac defibrillators, intra-aortic balloon pump, central
- 860 lines, pulmonary artery and arterial catheters, ventricular assist devices and
- 861 extracorporeal membrane oxygenation (ECMO), as appropriate, within the
- 862 programs scope of care.
- 863 (P) Infectious control.
- 864 (Q) Mechanical ventilation and respiratory physiology for adult, pediatric and
- 865 neonatal patients, including oxygen therapy in the transport environment.
- 866 (R) Pediatric medical and trauma emergencies.
- 867 (S) Pharmacology.
- 868 (T) Quality Management education.
- 869 (U) Respiratory emergencies.
- 870 (V) Scene management.

## 871

## 872

## 873 A. INITIAL ASSESSMENT OF NEW FIELD CARE

## 874 PROVIDERS

## 875

876 The term “candidate” refers to new job applicants, individuals seeking promotion or  
877 position changes, and those achieving a new EMS, RT or RN certification.  
878 For Air Medical Service Programs, the initial screening and assessment of candidates is a  
879 difficult, time consuming and often arduous task. Although personnel may share the  
880 same certification or license, the education, training, and experience among similarly  
881 certified or licensed individuals varies greatly. Failing to identify poor candidates can  
882 cost an agency time, resources and reputation, and may potentially expose the agency to  
883 unnecessary risk and litigation.

884  
885 This requires that systems implement and maintain strong initial assessment programs.  
886 This preliminary assessment tool will allow the agency’s management and medical

887 director to have insight into the candidate’s strengths and weaknesses thereby facilitating  
888 successful completion of the credentialing process for that individual.

889

890 The screening process not only identifies candidates optimally suited for success, the data  
891 collected during the process will provide the system valuable information for the quality  
892 improvement program. The data can be used to design education programs to bring  
893 candidates to entry-level requirements. Over time, initial assessment data can be  
894 correlated to job performance data to provide predictive measures for future hiring and  
895 promotions.

896

897 A prerequisite to any initial screening process is the presence of a comprehensive  
898 position description. Hiring qualifications should include experience relevant to the  
899 program’s scope of care and patient population and may include but is not limited to:

900

901 Specific position duties:

902

- 902 • Essential duties and responsibilities
- 903 • Education qualifications
- 904 • Professional experience
- 905 • Computer skills
- 906 • Language skills
- 907 • Math skills
- 908 • Reasoning ability and critical thinking skills
- 909 • Interpersonal and communication skills
- 910 • Certificates, licenses, and registration
- 911 • Physical demands of the position

912

913 Initial assessment should begin with a thorough screening to insure that candidates meet  
914 the minimum qualifications and requirements outlined in the position description. The  
915 process usually continues with *an assessment of the candidate’s knowledge, skills and*  
916 *experience.*

917

918 Agencies should be able to provide the job description for each clinical and operational  
919 position and document a process by which candidates are screened to insure that they  
920 meet the minimum qualifications for the position for which they desire.

921

922

#### WRITTEN ASSESSMENT OF DIDACTIC KNOWLEDGE

923

924 This knowledge evaluation should be specific to the certification level of the applicant  
925 and focus on clinical information. An AMP should NOT rely on the Texas Department of  
926 State Health Services or National Registry examination as their written assessment tool.  
927 AMP’s are encouraged to use a numeric scoring system to allow the agency and  
928 candidates to easily assess the level of preparedness for the candidate. The use of non-  
929 specific Pass/Fail criteria is discouraged.

929

930

#### SITUATION-BASED PRACTICAL ASSESSMENT

931 This evaluation is designed to assess the candidate’s ability to process information and  
932 make quality clinical decisions. It may also provide insight into the candidate’s  
933 interpersonal skills. Situational based practical assessments must be in scenario form and  
934 may or may not include practical skills evaluation simultaneously.

935  
936 PRACTICAL SKILLS ASSESSMENT

937 In addition to the situation-based assessment, agencies must conduct practical skills  
938 evaluations of certain skills. Most elect to do this separately if they cannot devise a  
939 method of including the skills in the situational assessments.

940  
941 BACKGROUND INVESTIGATION

942 ~~This portion of the process must include, at minimum, verification of TDSHS~~  
943 ~~certification, BNE licensure, NBRC licensure, and research into the candidate’s criminal~~  
944 ~~history, work history, driving record, and administrative history with the Bureau of~~  
945 ~~Emergency Management.~~

946  
947 PROCESS MUST DOCUMENT

- 948 • Presence of detailed position descriptions for all positions relative to the Air  
949 Medical Service crew.
- 950 • Documentation of the screening process of applications to insure minimum  
951 qualifications are met.
- 952 • Documentation of Medical Director involvement in the initial screening process  
953 criteria development.

954  
955 PERSONALITY PROFILES

956 ~~Many industries, including the National Football League and law enforcement, perform~~  
957 ~~personality profiles on potential candidates. These evaluations can identify personality~~  
958 ~~traits that correlate with job satisfaction and overall successful performance in the~~  
959 ~~specific industry. Personality profiles are recommended but not required by State Rule.~~

960  
961 MEDICAL DIRECTOR INVOLVEMENT IN HIRING

962 In some systems, the Medical Director may have limited involvement in the actual hiring  
963 process. It is understood that different systems will have different approaches to the  
964 initial assessment process. The Medical Director must take an active participation in  
965 hiring.

966  
967 In Medical Control Systems, the new hires are not the employees of the medical control  
968 firm or the Medical Director, but rather the individual agency. The initial screening  
969 process is one of the best opportunities for risk management with respect to clinical  
970 issues. The agency should be able to demonstrate how they incorporate the medical  
971 control system into the hiring process assist them in determining the suitability of each  
972 candidate for the system.

973

974 The Medical Director (or employees of the Medical Control System on behalf of the  
975 Medical Director) must actively participate in the initial screening process of the  
976 individuals agencies and the cumulative review of candidates and have a voice in the  
977 final selection of successful candidates.

978

979 Applicants must be able to demonstrate the Medical Directors involvement in the initial  
980 screening process.

981

982

983

## B. CREDENTIALING PROCESS

984

985 Formal credentialing of healthcare providers has its origins in hospital compliance with  
986 the standards that later became the Joint Commission on Accreditation of Hospital  
987 Organizations (JACHO). Originally focused solely on physicians, in recent years it has  
988 expanded to include a variety of professionals providing patient care. The application of  
989 credentialing concepts to the EMS setting is long overdue.

990

991 | [Accreditation/Licensure](#) and empowerment to credential began in 1912 at Third Clinical  
992 Congress of Surgeons of North America. A proposal for hospital standards ultimately led  
993 to the JCAHO.

994

995 Joint Commission definition of credentialing:

996

- 997 • Process of obtaining, verifying, and assessing the qualifications of a health care  
998 practitioner to provide patient care services in or for a health care organization.
- 999 • The primary purpose of credentialing is to ensure that any individual who wishes  
1000 to provide patient care is qualified and competent to exercise the clinical  
1001 privileges granted.
- 1002 • Credentialing is a process of differentiating membership on the staff (or  
1003 employment) from specific clinical privileges. It seems like such a simple issue,  
1004 but is actually quite complex.

1004

1005 The Medical Director is charged with the responsibility for:

1006

1007

- 1008 • The appropriateness of care provided under his or her direction.
- 1009 • Approving the level of pre-hospital care rendered by each provider regardless of  
1010 the level of state certification or licensure.
- 1011 • Establish and monitor compliance with field performance guidelines.
- 1012 • Establish and monitor compliance with training guidelines that meet or exceed the  
1013 minimum standards set forth in DSHS regulations.
- 1014 • Developing and monitoring a Quality Assurance process(es) all areas of clinical  
1015 care including chart reviews.
- 1016 • Suspend any authorized medical personnel from medical care duties for due  
1017 cause.

1017

1018 The credentialing process is specific to the medical director. It is separate from the  
1019 following:

- 1020 • General employment (employer)
- 1021 • General certification or licensing (Texas Department of State Health Services,  
1022 BNE or NBRC)
- 1023 • Operations and Management (Chief or CEO)

1024

1025 In most systems, the medical director has an area of authority over patient care, including  
1026 defining and controlling each provider's clinical privileges. This provides local decision-  
1027 making and accountability for the medical director. Separate from certification and  
1028 licensure which is a state minimum, credentialing allows a way for individual Air  
1029 Medical Services providers to establish their minimums above those of state  
1030 requirements. While the credentialing process is labor intensive, it provides superior  
1031 protection to medical directors and agencies against malpractice and administrative  
1032 liability.

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C.D. PRECEPTOR / NEW EMPLOYEE  
ORIENTATION/CLINICAL COMPONENT OF INITIAL  
TRAINING.

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The term “new employee orientation” is used to refer to on the job training, mentoring,  
and/or precepting. Such a process can be applied to students, new employees, and those  
that are promoting or changing to new positions. The term “preceptor” is used  
generically to refer to an actual preceptor, field training officer, mentor, or other such  
person that works directly with an individual participating in a new employee orientation.

1043

Initial assessment identifies candidates that possess the requisite traits necessary to be  
successful in a particular position. Ensuring success requires job specific mentoring,  
training, and skill building.

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1047

The new employee orientation and clinical rotations provides the opportunity for  
individual care providers to transition into the actual work environment under the  
guidance of an experienced preceptor. This process allows the opportunity for new  
caregivers to refine clinical patient assessment and therapeutic skills in the presence of a  
preceptor thereby accelerating the maturation process while protecting the public from  
errors due to lack of experience on the part of a new Air Medical Service provider. The  
new caregiver can become proficient in the delivery of quality patient care while  
becoming familiar with system specific operational practices.

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Ideally, the new employee orientation would involve direct patient care across numerous  
patient interactions with a variety of presenting complaints, ranging from stable to  
critical. However, budget, manpower, and call volume realities may make this goal  
difficult if not impossible. Air Medical Service candidates must be able to demonstrate  
an effective new employee orientation process. They may make use of mixture of

1062 scenario based evaluations and actual life patient care observation. If scenario based  
1063 evaluation is utilized, the agency must be able to demonstrate how the process duplicated  
1064 the realism and spontaneity of actual emergency responses.

1065  
1066 There must be a defined process for selecting and training the preceptors. The Medical  
1067 Director, in consultation of other appropriate parties, should make the final selection of  
1068 preceptors. In addition, preceptors should be individually authorized to mentor and  
1069 oversee up to specific certification or licensing levels.

1070  
1071 Post episode reviews (i.e. chart audits and interviews) are not a substitute for real-time  
1072 preceptor evaluation.

1073  
1074 Various individuals within the organization may develop preceptor training. Agencies  
1075 may also choose to outsource this development process. Regardless of who develops the  
1076 training program, the medical director is responsible for approving the clinical aspects of  
1077 the training program.

1078  
1079 A new employee orientation and clinical manual describing the objectives, content, and  
1080 measurement points of the new employee orientation and rotations must be developed  
1081 and distributed to all preceptors and candidates. The manual should include all the  
1082 necessary forms to document the progress and successful completion of the new  
1083 employee orientation. Agencies must be able to demonstrate how new employee  
1084 orientation objectives have been fulfilled.

1085  
1086 To insure consistency and to allow the preceptor to monitor the progress of each  
1087 individual candidate, employees should be assigned to one specific preceptor. In some  
1088 cases, additional preceptors may be necessary to meet special needs, but the number of  
1089 different preceptors for any individual candidate should be kept to a minimum.

1090  
1091 The preceptor is responsible for insuring that the employee is thoroughly briefed on all  
1092 operational and clinical issues that impact patient care, including but not limited to:

- 1093
- 1094 • Individual protocols
- 1095 • Individual clinical procedures
- 1096 • Operational and clinical policies
- 1097 • Documentation
- 1098 • Radio communication
- 1099 • Territory orientation
- 1100 • Flight operations orientation
- 1101 • Safety
- 1102 • Unit operations
- 1103 • Infection Control Practices
- 1104 • Mutual Aid Response
- 1105 • Agency norms and culture

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1108 | On accommodating airframes, employees will ride as “third” person on the aircraft until  
1109 | the preceptor establishes that the employee has met pre-established competencies as  
1110 | defined by the Medical Director

1111

1112 | On airframes that cannot accommodate a “third” person, employees will ride as a  
1113 | “second” person until the preceptor establishes that the employee meets the prerequisites  
1114 | for independent duty as determined by the Medical Director. The new employee  
1115 | orientation manual should address how the preceptor monitors and measures the  
1116 | employee’s progress.

1117

1118 | Clinical experiences will be based on the programs mission, scope of care and patient  
1119 | population. Measurable objectives need to be developed and documented for each  
1120 | experience listed below reflecting hands-on experience versus observation only. The  
1121 | following areas will need to be included for the scope of practice in areas in which the  
1122 | team transports.

1123

- Adult, pediatric and neonatal critical care.
- Adult, pediatric and neonatal emergency care.
- Invasive procedures utilizing animal models, human cadavers or Human Patient Simulators for demonstration of invasive procedure competencies.
- Neonatal intensive care.
- Obstetrics.
- Pre-hospital critical care.
- Tracheal intubations with no less the 5 live intubations which could include animal labs, cadaver and Human Patient Simulator (HPS) experience as well as alternative airway management.

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1134 | The prerequisites for independent duty must require at a minimum that the employee  
1135 | demonstrates thorough understanding of aircraft safety, the agency protocols, ability to  
1136 | use protocol and procedure manuals as a reference tool, and proficiency in clinical  
1137 | procedures as listed above. Agencies are encouraged to develop measurement tools for  
1138 | other operational areas that impact patient care as well.

1139

1140 | Proficiency in clinical procedures must be verified by a second evaluator for objectivity  
1141 | purposes, in addition to the assigned preceptor.

1142

1143 | It is recommended that the employee be evaluated on a representative sample of call  
1144 | types, such as adult, pediatric, trauma and others identified by the medical direction.

1145

1146 | Toward the conclusion of the new employee experience the employee must complete  
1147 | protocol testing. Although this evaluation may include a practical component, agencies  
1148 | are encouraged to utilize a written assessment tool so that a broader scope of material  
1149 | may be assessed. The medical director, in coordination with other appropriate parties,  
1150 | must establish pass/fail criteria for the protocol evaluation.

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The organization must have an established separation, re-education or remediation criteria for those that are not successful in completing the process.

Upon completion of the new employee orientation, the employee should complete a comprehensive evaluation of the new employee orientation process. The agency should use this information to modify and improve the process for future candidates.

### DC. DIDACTIC INITIAL EDUCATION:

As Air Medical Service Providers it is imperative to establish a didactic component of initial education of all medical personnel. This education should be specific and appropriate for the mission statement and scope of care of the medical transport service. This educational experience should include but is not limited to:

Required:

- Advanced airway management
- Altitude physiology and stressors of flight.
- Anatomy and physiology along with assessment of adult, pediatric and neonatal patients, as appropriate, within the programs scope of care.
- Aircraft and ambulance orientation including safety procedures (for all crew members including specialty team members)
- Emergency procedures for depressurization for fixed wing.
- Emergency access and egress training.
- Orientation to all emergency procedures.
- Air Medical Service Crew Resource Management including human factors, stress recognition and management.
- Survival training.
- Cardiac emergencies and advanced cardiac critical care.
- Mission specific education for patient populations encountered (i.e. environmental emergencies, high risk OB, multi-system trauma, neonatal emergencies, thermal related injuries, etc.)
- Disaster and triage including Haz-Mat recognition and response.
- Radio communications.
- Hemodynamic monitoring, pacemakers (invasive and non invasive), automatic implantable cardiac defibrillators, intra-aortic balloon pump, central lines, pulmonary artery and arterial catheters, ventricular assist devices and extracorporeal membrane oxygenation (ECMO).
- Infectious control.
- Mechanical ventilation and respiratory physiology for adult, pediatric and neonatal patients, including oxygen therapy in the transport environment.
- Pediatric medical and trauma emergencies.
- Pharmacology

- 1195 • Quality Management education.
- 1196 • Respiratory emergencies.
- 1197 • Scene management.

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~~D. PRECEPTOR / NEW EMPLOYEE~~

1200

~~ORIENTATION / CLINICAL COMPONENT OF INITIAL~~

1201

~~TRAINING.~~

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~~The term “new employee orientation” is used to refer to on the job training, mentoring, and/or precepting. Such a process can be applied to students, new employees, and those that are promoting or changing to new positions. The term “preceptor” is used generically to refer to an actual preceptor, field training officer, mentor, or other such person that works directly with an individual participating in a new employee orientation.~~

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~~Initial assessment identifies candidates that possess the requisite traits necessary to be successful in a particular position. Ensuring success requires job specific mentoring, training, and skill building.~~

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~~The new employee orientation and clinical rotations provides the opportunity for individual care providers to transition into the actual work environment under the guidance of an experienced preceptor. This process allows the opportunity for new caregivers to refine clinical patient assessment and therapeutic skills in the presence of a preceptor thereby accelerating the maturation process while protecting the public from errors due to lack of experience on the part of a new Air Medical Service provider. The new caregiver can become proficient in the delivery of quality patient care while becoming familiar with system specific operational practices.~~

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~~There must be a defined process for selecting and training the preceptors. The Medical Director, in consultation of other appropriate parties, should make the final selection of preceptors. In addition, preceptors should be individually authorized to mentor and oversee up to specific certification or licensing levels.~~

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~~Post episode reviews (i.e. chart audits and interviews) are not a substitute for real time preceptor evaluation.~~

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1238

1239 ~~Various individuals within the organization may develop preceptor training. Agencies~~  
1240 ~~may also choose to outsource this development process. Regardless of who develops the~~  
1241 ~~training program, the medical director is responsible for approving the clinical aspects of~~  
1242 ~~the training program.~~

1243

1244 ~~A new employee orientation and clinical manual describing the objectives, content, and~~  
1245 ~~measurement points of the new employee orientation and rotations must be developed~~  
1246 ~~and distributed to all preceptors and candidates. The manual should include all the~~  
1247 ~~necessary forms to document the progress and successful completion of the new~~  
1248 ~~employee orientation. Agencies must be able to demonstrate how new employee~~  
1249 ~~orientation objectives have been fulfilled.~~

1250

1251 ~~To insure consistency and to allow the preceptor to monitor the progress of each~~  
1252 ~~individual candidate, employees should be assigned to one specific preceptor. In some~~  
1253 ~~cases, additional preceptors may be necessary to meet special needs, but the number of~~  
1254 ~~different preceptors for any individual candidate should be kept to a minimum.~~

1255

1256 ~~The preceptor is responsible for insuring that the employee is thoroughly briefed on all~~  
1257 ~~operational and clinical issues that impact patient care, including but not limited to:~~

1258

- 1259 • ~~Individual protocols~~
- 1260 • ~~Individual clinical procedures~~
- 1261 • ~~Operational and clinical policies~~
- 1262 • ~~Documentation~~
- 1263 • ~~Radio communication~~
- 1264 • ~~Territory orientation~~
- 1265 • ~~Flight operations orientation~~
- 1266 • ~~Safety~~
- 1267 • ~~Unit operations~~
- 1268 • ~~Infection Control Practices~~
- 1269 • ~~Mutual Aid Response~~
- 1270 • ~~Agency norms and culture~~

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1273 ~~On accommodating airframes, employees will ride as “third” person on the aircraft until~~  
1274 ~~the preceptor establishes that the employee has met pre-established competencies as~~  
1275 ~~defined by the Medical Director~~

1276

1277 ~~On airframes that cannot accommodate a “third” person, employees will ride as a~~  
1278 ~~“second” person until the preceptor establishes that the employee meets the prerequisites~~  
1279 ~~for independent duty as determined by the Medical Director. The new employee~~  
1280 ~~orientation manual should address how the preceptor monitors and measures the~~  
1281 ~~employee’s progress.~~

1282

1283 ~~Clinical experiences will be based on the programs mission, scope of care and patient~~  
1284 ~~population. Measurable objectives need to be developed and documented for each~~  
1285 ~~experience listed below reflecting hands-on experience versus observation only. The~~  
1286 ~~following areas will need to be included for the scope of practice in areas in which the~~  
1287 ~~team transports:~~

- 1288 ~~• Adult, pediatric and neonatal critical care.~~
- 1289 ~~• Adult, pediatric and neonatal emergency care.~~
- 1290 ~~• Invasive procedures utilizing animal models, human cadavers or Human Patient~~  
1291 ~~Simulators for demonstration of invasive procedure competencies.~~
- 1292 ~~• Neonatal intensive care.~~
- 1293 ~~• Obstetrics.~~
- 1294 ~~• Pre-hospital critical care.~~
- 1295 ~~• Tracheal intubations with no less than 5 live intubations which could include~~  
1296 ~~animal labs, cadaver and Human Patient Simulator (HPS) experience as well as~~  
1297 ~~alternative airway management.~~

1298  
1299 ~~The prerequisites for independent duty must require at a minimum that the employee~~  
1300 ~~demonstrates thorough understanding of aircraft safety, the agency protocols, ability to~~  
1301 ~~use protocol and procedure manuals as a reference tool, and proficiency in clinical~~  
1302 ~~procedures as listed above. Agencies are encouraged to develop measurement tools for~~  
1303 ~~other operational areas that impact patient care as well.~~

1304  
1305 ~~Proficiency in clinical procedures must be verified by a second evaluator for objectivity~~  
1306 ~~purposes, in addition to the assigned preceptor.~~

1307  
1308 ~~It is recommended that the employee be evaluated on a representative sample of call~~  
1309 ~~types, such as adult, pediatric, trauma and others identified by the medical direction.~~

1310  
1311 ~~Toward the conclusion of the new employee experience the employee must complete~~  
1312 ~~protocol testing. Although this evaluation may include a practical component, agencies~~  
1313 ~~are encouraged to utilize a written assessment tool so that a broader scope of material~~  
1314 ~~may be assessed. The medical director, in coordination with other appropriate parties,~~  
1315 ~~must establish pass/fail criteria for the protocol evaluation.~~

1316  
1317 ~~The organization must have an established separation, re-education or remediation~~  
1318 ~~criteria for those that are not successful in completing the process.~~

1319  
1320 ~~Upon completion of the new employee orientation, the employee should complete a~~  
1321 ~~comprehensive evaluation of the new employee orientation process. The agency should~~  
1322 ~~use this information to modify and improve the process for future candidates.~~

1323  
1324

1325 SECTION 2: REQUIRED PROFESSIONAL  
1326 DEVELOPMENT  
1327

1328 157.12 Proposed Rule Language – Rotor Wing Operations  
1329

- 1330 (c) The AMP must implement and maintain Professional Development Programs that:  
1331 (A) Reinforce and expand the knowledge base of the individual provider.  
1332 (B) Have objectives based upon quality improvement outcomes.  
1333 (C) Are designed to incorporate best practices from industry, Protocol  
1334 Development Review Committee (PDRC), and Quality Improvement  
1335 Committee (QIC).
- 1336 (2) The AMP will maintain minimum professional requirements.  
1337 (A) Hours as required by the professional certifying or licensing authority.  
1338 (B) Consisting of at least 50% in person training.  
1339 (C) Must offer a Professional Development Program on at least a semi-annual  
1340 basis.  
1341 (D) The Medical Director shall be responsible for defining and approving the  
1342 objectives of the professional development hours.
- 1343 (3) The AMP will provide Professional Development Training Programs that  
1344 annually include:  
1345 (A) Hazardous Materials.  
1346 (B) Human Factors and Crew Resource Management (including specialty team  
1347 members).  
1348 (C) Infectious Control.  
1349 (D) State EMS rules and regulations regarding ground and air transport.  
1350 (E) Stress recognition and management.  
1351 (F) Survival Training (including specialty team members).  
1352 (G) Medical patient transport considerations (assessment/treatment/preparation  
1353 handling/equipment)  
1354 (H) Day and night flight protocols  
1355 (I) General aircraft safety including (including specialty team members):  
1356 Emergency shut down and aircraft evacuation procedures.  
1357 (J) Aviation terminology and communications procedures including emergency  
1358 frequency uses.  
1359 (K) In flight and ground fire suppression procedures (fire extinguishers)  
1360 (L) In flight emergency landing procedures.  
1361 (M) Safety in and around the aircraft, including FAA rules and regulations  
1362 pertinent to safety for medical team members, patient(s) and lay individuals.

- 1363 (N) Specific capabilities and limitations for each aircraft used, which includes
- 1364 backup aircraft.
- 1365 (O) Use of emergency locator transmitter (ELT)
- 1366 (P) Scene landing operations.
- 1367 (Q) Hospital landing site changes or special needs review.
- 1368 (R) Patient loading and unloading (including specialty team members)
- 1369 (S) Refueling policy for normal and emergency situations.
- 1370 (4) The AMP shall provide outreach professional development:
- 1371 (A) That clearly identifies the FAA Part 135 Certificate Holder as the entity that is
- 1372 operating the aircraft.
- 1373 (B) The Air Medical Provider must provide education regarding safe Ground
- 1374 Operations in and around the aircraft.
- 1375 (C) Safety program consisting of patient preparation criteria and personal safety
- 1376 around the aircraft.
- 1377 (i) Including landing zone (LZ) designation for rotor wing services.
- 1378 (ii) Information on how to initiate a flight.
- 1379 (iii) Hours of operations.
- 1380 (iv) Helicopter shopping dangers.
- 1381 (v) Access to services/services available from the flight program including
- 1382 crew composition and specialty teams.
- 1383

#### 1384 157.13 Proposed Rule Language – Fixed Wing Operations

- 1385
- 1386 (c) The AMP must implement and maintain Professional Development Programs that:
- 1387 (A) Reinforce and expand the knowledge base of the individual provider.
- 1388 (B) Have objectives based upon quality improvement outcomes.
- 1389 (C) Are designed to incorporate best practices from industry, Protocol
- 1390 Development Review Committee (PDRC), and Quality Improvement
- 1391 Committee (QIC).
- 1392 (5) The AMP will maintain minimum professional requirements.
- 1393 (A) Hours as required by the professional certifying or licensing authority.
- 1394 (B) Consisting of at least 50% in person training.
- 1395 (C) Must offer a Professional Development Program on at least a semi-annual
- 1396 basis.
- 1397 (D) The Medical Director shall be responsible for defining and approving the
- 1398 objectives of the professional development hours.
- 1399 (6) The AMP will provide Professional Development Training Programs that
- 1400 annually include:
- 1401 (A) Hazardous Materials.

- 1402 (B) Human Factors and Crew Resource Management (including specialty team
- 1403 members).
- 1404 (C) Infectious Control.
- 1405 (D) State EMS rules and regulations regarding ground and air transport.
- 1406 (E) Stress recognition and management.
- 1407 (F) Survival Training (including specialty team members).
- 1408 (G) Medical patient transport considerations (assessment/treatment/preparation
- 1409 handling/equipment)
- 1410 (H) Day and night flight protocols
- 1411 (I) General aircraft safety including (including specialty team members):
- 1412 Emergency shut down and aircraft evacuation procedures.
- 1413 (J) Aviation terminology and communications procedures including emergency
- 1414 frequency uses.
- 1415 (K) In flight and ground fire suppression procedures (fire extinguishers)
- 1416 (L) In flight emergency landing procedures.
- 1417 (M) Safety in and around the aircraft, including FAA rules and regulations
- 1418 pertinent to safety for medical team members, patient(s) and lay individuals.
- 1419 (N) Specific capabilities and limitations for each aircraft used, which includes
- 1420 backup aircraft.
- 1421 (O) Use of emergency locator transmitter (ELT)
- 1422 (P) Landing operations.
- 1423 (Q) Patient loading and unloading (including specialty team members)
- 1424 (R) Refueling policy for normal and emergency situations.
- 1425 (7) The AMP shall provide outreach professional development:
- 1426 (A) That clearly identifies the FAA Part 135 Certificate Holder as the entity that is
- 1427 operating the aircraft.
- 1428 (B) The Air Medical Provider must provide education regarding safe Ground
- 1429 Operations in and around the aircraft.
- 1430 (C) Safety program consisting of patient preparation criteria and personal safety
- 1431 around the aircraft.
- 1432 (D) Information on how to initiate a flight.
- 1433 (E) Hours of operations.
- 1434 (F) Access to services/services available from the flight program including crew
- 1435 composition and specialty teams.

1436  
1437 Air Medical Service Programs must implement and maintain professional development  
1438 programs designed to reinforce current knowledge and to expand the knowledge base of  
1439 the pre-hospital provider.  
1440

1441 Professional development is the natural outgrowth of an outcomes based quality  
1442 improvement program. Through the QI program, an agency will define objectives that  
1443 must be addressed through professional development.

1444

1445 The professional development hours required in this section may be defined by the  
1446 Quality Improvement process objectives, other clinical or operational topics, career  
1447 development, or other items deemed appropriate by the agency. This section is being  
1448 considered outside the Quality Improvement section so that agencies may have the  
1449 flexibility to allocate the professional development hours as necessary to fulfill agency  
1450 goals. However, the QI program may be the exclusive source for Professional  
1451 Development objectives.

1452

1453 Agencies will provide a minimum number of professional development hours for their  
1454 EMS personnel designed to meet objectives identified through the quality improvement  
1455 program. The minimum number of hours for State each certification must be met. shall  
1456 be:

1457

- ~~24 hours per year for certified and licensed Paramedics~~

1458

- ~~20 hours per year for EMT Intermediates~~

1459

- ~~16 hours per year for Basic Emergency Medical Technicians~~

1460

1461 Other Air Medical Service AMP personnel (i.e., flight nurses, Respiratory Therapists, and  
1462 communications personnel) will be required to obtain at least minimum continuing  
1463 education as directed by the certifying or licensing authority. These hours may be  
1464 concurrent with the requirements above.

1465

1466 At least 50% of professional development hours must be in-person training.

1467

1468 Agencies must offer professional development on at least a semiannual basis.

1469

1470 Professional development should span the three domains of learning (cognitive,  
1471 psychomotor, and affective.) as appropriate.

1472

1473 The medical director shall be responsible for defining and approving the objectives of the  
1474 professional development hours. The actual content development and presentation may  
1475 be delegated to appropriate individuals. However, the medical director is responsible for  
1476 insuring that the content meets the defined objectives.

1477

1478 ~~In larger systems or in Medical Control Systems, multiple instructors may be necessary to~~  
1479 ~~reach all the employees of the agency. Because of this, the potential exists for~~  
1480 ~~inconsistency in instructional delivery and the failure to meet the objections of the~~  
1481 ~~program. Agencies should be able to demonstrate the methods used to promote~~  
1482 ~~consistent delivery of the objectives and an evaluative process that monitors for potential~~  
1483 ~~deviation. Methods to promote consistent delivery might include curriculum develop by~~  
1484 ~~the instructional group, providing supporting materials for the curriculum, meetings of~~

1485 ~~the instructional staff to discuss the material, or having instructors attended session prior~~  
 1486 ~~to instructing.~~

1487  
 1488 ~~Agencies should be able to document strengths in their training program and describe~~  
 1489 ~~how they overcome weaknesses. They should be able to document:~~

- 1490
- 1491 ~~• credentials of their instructional staff~~
- 1492 ~~• involvement of the medical director~~
- 1493 ~~• correlation of quality review to educational objectives~~
- 1494 ~~• correlation of prospective goals to educational objectives~~
- 1495 ~~• meet the varying needs of the their staff~~
- 1496 ~~• administrative support for professional development~~
- 1497 ~~• appropriate methodology for the objectives offered~~
- 1498 ~~• appropriate class size for the objectives offered~~
- 1499 ~~• inter-rater reliability where appropriate~~
- 1500 ~~• method to evaluate long term impact of professional development activities~~

1501  
 1502 ~~In addition to the quality improvement driven professional development needs addressed~~  
 1503 ~~above, agencies must ensure that personnel remain credentialed in nationally endorsed~~  
 1504 ~~courses (or a determined equivalent) such as, Advanced Cardiac Life Support, Advanced~~  
 1505 ~~Trauma Life Support, and Pediatric Advanced Life Support. Some form of provider~~  
 1506 ~~oriented CPR certification for Adult, Pediatric and Neonatal patient populations is~~  
 1507 ~~required as well. The maintenance of these credentials shall be in addition to the~~  
 1508 ~~professional development requirements outlined above.~~

1509  
 1510 ~~The following is a required list of credentials by certification:~~

	CPR	Cardiac	Trauma	Pediatrics	Neonatal
EMT	X	-	X	X	-
Flight Nurse	X	X	X	X	X
Flight Paramedic	X	X	X	X	X
Physicians	X	X	X	X	X
Respiratory Therapists	X	X	-	X	X

1511  
 1512 ~~Agencies shall maintain appropriate records, including but not limited to:~~

- 1513 ● Current certifications and credentials
- 1514 ● Objectives
- 1515 ● Lesson plans
- 1516 ● Attendance rosters
- 1517 ● Completion records
- 1518 ● Course evaluations

1519

1520 Agencies are encouraged to reference the continuing education rule for guidelines for  
1521 appropriate continuing education documentation.

1522

1523 Professional development hours:

1524 ● ~~24 hours per year for EMT P's~~

1525 ● ~~20 hours per year for EMT-Is~~

1526 ● ~~16 hours per year for EMTs~~

- 1527 ● All personnel (i.e., flight nurses, flight paramedics, Respiratory Therapists, and  
1528 communications personnel) will be required to obtain at least minimum  
1529 continuing education as directed by the certifying or licensing authority.

1530 Content and delivery:

- 1531 ● The CE content shall be defined and approved by the Medical Director.
- 1532 ● The CE content must be driven by the results of Quality Improvement efforts.
- 1533 ● At least 50% of CE is in-person training
- 1534 ● CE occurs on at least a semiannual or quarterly basis.
- 1535 ● ~~Evidence that the instruction spans the three learning domains~~
- 1536 ● ~~Documentation of programmatic strengths and performance improvement plan for~~  
1537 ~~weaknesses.~~

1538 Must include annual review of:

- 1539 ● Hazardous Materials
- 1540 ● Human Factors and Crew Resource Management (including specialty team  
1541 members)
- 1542 ● Infectious Control
- 1543 ● State EMS rules and regulations regarding ground and air transport.
- 1544 ● Stress recognition and management.
- 1545 ● Survival Training (including specialty team members).
- 1546 ● Medical patient transport considerations (assessment/treatment/preparation  
1547 handling/equipment)
- 1548 ● Day and night flight protocols
- 1549 ● General aircraft safety including (including specialty team members): Emergency  
1550 shut down and evacuation procedures.
- 1551 ● Aviation terminology and communications procedures including emergency  
1552 frequency uses.
- 1553 ● In flight and ground fire suppression procedures (fire extinguishers)
- 1554 ● In flight emergency landing procedures.

- 1555 • Safety in and around the aircraft, including FAA rules and regulations pertinent to
- 1556 safety for medical team members, patient(s) and lay individuals.
- 1557 • Specific capabilities and limitations for each aircraft used, which includes backup
- 1558 aircraft.
- 1559 • Use of emergency locator transmitter (ELT)
- 1560 • Scene landing operations.
- 1561 • Hospital landing site changes or special needs review.
- 1562 • Patient loading and unloading (including specialty team members)
- 1563 • Refueling policy for normal and emergency situations.
- 1564 • Survival training/techniques/equipment that is pertinent to the
- 1565 environment/geographic coverage area of the medical service (including specialty
- 1566 team members)

1567  
1568 ~~Flight nurses remain current on a nationally recognized and organized educational~~

1569 ~~program for advanced cardiac, advanced trauma, advanced pediatric, and advanced~~

1570 ~~neonatal treatment techniques.~~

1571  
1572 ~~Flight paramedics remain current on a nationally recognized and organized educational~~

1573 ~~program for advanced cardiac, advanced trauma, advanced pediatric, and advanced~~

1574 ~~neonatal treatment techniques.~~

1575  
1576 ~~Physicians remain current on a nationally recognized and organized educational program~~

1577 ~~for advanced cardiac, advanced trauma, advanced pediatric, and advanced neonatal~~

1578 ~~treatment techniques.~~

1579  
1580 ~~Respiratory Therapists remain current on a nationally recognized and organized~~

1581 ~~educational program for advanced cardiac, advanced pediatric, and advanced neonatal~~

1582 ~~treatment techniques.~~

1583  
1584 ~~A method for ensuring consistent instructional delivery across multiple instructors~~

1585

## 1586 OUTREACH PROFESSIONAL DEVELOPMENT

1587

## 1588 GENERAL PUBLIC EDUCATION

1589

1590 The FAA Part 135 Certificate Holder must be clearly identified as the entity that is

1591 operating the aircraft on the program's website, in marketing materials and on the

1592 aircraft. Other community outreach as per your program needs arise.

1593

## 1594 FIRST RESPONDER/HOSPITAL EDUCATION

1595 The Air Medical Provider must provide education regarding safe Air Medical

1596 Operations in and around the aircraft. Safety program consisting of patient preparation

1597 and personal safety around the aircraft to include landing zone (LZ) designation for rotor

1598 wing services, information on how to initiate a flight, hours of operations, helicopter  
1599 shopping dangers, access to services/services available from the flight program including  
1600 crew composition and specialty teams.  
1601

1602 **SECTION 3: PROTOCOL/STANDARDS OF CARE**  
1603 **MANAGEMENT**

1604  
1605 **157.12 Proposed Rule Language – Rotor Wing Operations**  
1606

- 1607 (d) An AMP must demonstrate protocol administration and oversight.
- 1608 (1) The AMP must demonstrate that the protocol is annually reviewed and updated.
  - 1609 (A) Ensuring that the protocol review incorporates evidence based best practices
  - 1610 and data.
  - 1611 (B) Must review recommendations as proposed by the PDRC for incorporation.
  - 1612 ~~(A)(C)~~
  - 1613 (2) The AMP protocol must be executed/approved by the Medical Director.
  - 1614 (3) The AMP must demonstrate a process for assessing relative benefit from protocol
  - 1615 revisions.
  - 1616 (4) The protocol criteria will be jointly defined by the Medical Director and by the
  - 1617 provider’s PDRC.
  - 1618 (5) The AMP must demonstrate protocol compliance.
  - 1619 (A) The AMP must demonstrate the level of clinical care provider proficiency as
  - 1620 defined by the Medical Director.
  - 1621 (B) The AMP must demonstrate a remediation process for clinical care providers
  - 1622 and timeline that clearly identifies the criteria for successful completion and
  - 1623 for revocation of credentials.

1624  
1625 **157.13 Proposed Rule Language – Fixed Wing Operations**  
1626

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1639 defined by the Medical Director.  
1640 (B) The AMP must demonstrate a remediation process for clinical care providers  
1641 and timeline that clearly identifies the criteria for successful completion and  
1642 for revocation of credentials.  
1643

## 1644 PROTOCOL REVIEW PROCESS

1645  
1646 (Note: The term “protocol” will be used synonymously with the terms patient care  
1647 guidelines, standing delegated orders, standing orders, and local standard of care.)  
1648

1649 Protocol review and evaluation should be an on-going process. However, many agencies  
1650 elect to make this a once a year process, or worse ignore the process all together. The  
1651 former assumes that protocol knowledge degrades minimally throughout the year and  
1652 only needs to be refreshed and re-measured annually. The latter assumes that personnel  
1653 are all knowing and that there is no knowledge degradation in the industry’s health care  
1654 providers.  
1655

1656 Intuitively, we know that neither of these assumptions is accurate. As humans,  
1657 knowledge actively degrades from our memory. Only through consistent practice or  
1658 reinforcement are we able to maintain cognitive and practical efficiency over time.  
1659

1660 In truth, Air Medical Service personnel do not have to be all knowing or all remembering  
1661 to make quality patient care decisions. Having a strong base knowledge and a solid set of  
1662 user-friendly protocols as reference material should allow the provider ample knowledge,  
1663 as long as it is used wisely. However, occasions will occur in which the provider is  
1664 unable to reference the protocols in a timely fashion, leaving them will little more than  
1665 their innate resources. Therefore, it is recommended that agencies implement and  
1666 maintain some form of on-going protocol reinforcement.  
1667

1668 Protocol evaluation is a three-step process.

- 1669 • Maintaining current protocols
  - 1670 • Ongoing protocol reinforcement
  - 1671 • Ongoing surveillance of protocol compliance (found in the QI Section)
- 1672

1673 The medical director is responsible for ensuring that the protocols are updated annually  
1674 and that they reflect the current clinical trends and best practices of the industry. While  
1675 the medical director is responsible for the protocol content, the process of insuring that  
1676 they remain current can be delegated and shared among the staff. Often, ancillary  
1677 personnel perform the routine duties for the medical director. Field staff often takes an  
1678 active role in this process as well. The Air Medical Director should review and  
1679 incorporate the PDRC recommendations as part of the process of field involvement.

1680 Anecdotally, the greater the staff participation in protocol development, the greater the  
1681 compliance with the protocols will be. As each new breakthrough in clinical fronts  
1682 occurs, a medical director must assess its application to the Air Medical Service arena.

1683  
1684 While medical directors are responsible for considering current industry trends, they are  
1685 not bound to accept and incorporate those trends in the clinical practice. There are  
1686 numerous reasons why a particular trend might not be incorporated. Agencies must  
1687 balance the benefit to patients with the cost of implementation, including financial,  
1688 administrative and operational investments. The agency should be able to demonstrate a  
1689 cost-benefit process used to determine when and if a particular protocol change should be  
1690 implemented.

1691  
1692 Regardless, on-going protocol review against current literature should be executed on at  
1693 least an annual basis. Many agencies elect to do this on a quarterly basis, dedicating each  
1694 period of the calendar to a particular component of the practice, i.e. medical, cardiac,  
1695 trauma, or pediatrics.

1696  
1697 Traditionally, protocol evaluation has taken the form of a written examination. Many  
1698 agencies rely on this method, especially when new versions of the protocols are  
1699 disseminated. Many alternative methods are available to agencies. In fact, one might  
1700 attempt to implement a variety of methods in order to maintain interest in the process and  
1701 reach a diverse population of learners.

1702  
1703 Here are a few examples:

- 1704 • Monthly case study with a protocol assessment on the topic. This might be
- 1705 accomplished in the classroom, on the internet, or as a independent study item
- 1706 • Periodic “game” competition using Trivial Pursuit, Jeopardy, or similar game
- 1707 formats to make the session more enjoyable
- 1708 • Monthly open book study sheets on rotating topics
- 1709 • Medical Director led discussions or forums

1710  
1711 The goal is two-fold. First, get the personnel to open and re-familiarize themselves with  
1712 the protocols. Secondly it is to provide documentation and compliance of the same.

1713  
1714 Regardless of the method, the medical director is responsible for defining the content and  
1715 approving the methodology of assessment. The medical director may defer to the  
1716 administration and others versed in adult learning methodology to find the right mix of  
1717 instruction and measurement for the particular agency’s personnel mix.

1718  
1719 Through such a process, agencies might find that a small number of personnel will fail to  
1720 demonstrate the level of proficiency defined by the medical director. A remediation  
1721 process, complete with an improvement timeline, must be defined in policy. To be fair to  
1722 the provider and to insure that that the provider meets expectation, reassessment must  
1723 have been substantively different than original evaluation.

1724

1725 Decisions on re-evaluating the entire span of content or focusing on the area requiring  
1726 improvement are the discretion of the medical director or designee.

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1728

1729

## SECTION 4: OPERATIONAL STANDARDS

1730

1731 157.12 Proposed Rule Language – Rotor Wing Operations

1732

1733 (e) The AMP must demonstrate operational standards:

1734 (1) The AMP must demonstrate aircraft design and configuration that does not  
1735 compromise patient stability in loading, unloading or in-flight operations.

1736 (A) The aircraft must have an entry that allows loading and unloading without  
1737 excessive maneuvering (no more than 45 degrees about the lateral axis and 30  
1738 degrees about the longitudinal axis) of the patient, and does not compromise  
1739 functioning of monitoring systems, intravenous lines, and manual or  
1740 mechanical ventilation.

1741 (B) The AMP must demonstrate that aircraft have a minimum of one  
1742 stretcher/sled.

1743 (i) The stretcher/sled must be able to be carried to the patient.

1744 (ii) The AMP must demonstrate ~~aircraft stretchers and~~ the means of securing  
1745 ~~stretchers/sleds that are in-flight must be~~ consistent with FAR's.

1746 (iii) The AMP must demonstrate a policy that indicates the maximum gross  
1747 weight allowed on the stretcher (inclusive of patient and equipment) as  
1748 consistent with manufacturer's guidelines.

1749 (iv) The stretcher must be large enough to carry the 95th percentile adult  
1750 patient, full length in the supine position. (The 95th percentile adult  
1751 American male is 6 ft. and 212 lbs.)

1752 (v) The stretcher should be sturdy and rigid enough that it can support  
1753 cardiopulmonary resuscitation. If a backboard or equivalent device is  
1754 required to achieve this, such device will be readily available.

1755 (vi) The head of the stretcher must be capable of being elevated at least 30  
1756 degrees for patient care and comfort.

1757 (vii) If the stretcher is floor supported by its own wheels, there must be  
1758 a mechanism to secure it in position under all conditions. These restraints  
1759 permit quick attachment and detachment for patient transfer.

1760 (C) The AMP must demonstrate operational standards that require securing the  
1761 patient to the stretcher/sled.

1762 (i) Patients transported by air are restrained with a minimum of three cross  
1763 straps and shoulder straps that must comply with FAA regulations  
1764 including applicable STCs. (cross straps are expected to restrain the  
1765 patient at the chest, hips and knees). Belt locations should be adjustable

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along the length of the stretcher to accommodate patients' specific medical situations (Such as pregnant patients or specific injury locations)

(ii) Patients less than 60 pounds (27kg.) must be secured with an appropriately sized restraining device (for patient's height and weight), which must be secured by a FAA approved locking device that allows good access to the patient from all sides and permits the patients head to be raised at least 30 degrees.

~~(ii) Patients less than 60 pounds (27kg.) should be provided with an appropriately sized FAA approved restraining device (for patient's height and weight), which is further secured by a locking device.~~

(iii) Patients less than 40 pounds (18kg) must be secured in a five-point safety strap device that allows good access to the patient from all sides and permits the patients head to be raised at least 30 degrees.

- (2) The AMP must demonstrate operational standards that address the use of an Isolette when it is part of the AMP's mission profile.
  - (A) There must be a restraining device within the isolette to protect the infant in the event of air turbulence or poor road conditions.
  - (B) Isolettes must be capable of being opened from its secured position in order to provide full access to the infant in the event of complicated airway problems or extrication from the isolette becomes necessary.
- (3) The AMP must demonstrate an aircraft policy to address the need for supplemental lighting system installed in any aircraft in which standard lighting is insufficient for patient care.
  - (A) A self-contained lighting system may be powered by a battery pack or a portable light with a battery source must be available.
  - (B) In an aircraft, there must be a means to protect the pilot's night adaptation vision provided for night operations, either through the medical configuration or by a dividing curtain. (Use of adaptive lighting or low intensity lighting in the patient care area is acceptable if not able to isolate the patient care area.)
- (4) The AMP must document that medical equipment complies with the applicable F.A.R. on avionics interference.
- (5) The AMP Aircraft must have operational controls and communications equipment that are physically protected from any intended or accidental interference by the patient, medical transport personnel, or equipment and supplies.
- (6) The AMP must demonstrate policies that address storage, maintenance, use and accessibility of inhaled gases appropriate to the AMP mission profile.
- (7) The AMP must demonstrate policies that address medication:
  - (A) Storage within the manufacturers recommendations
  - (B) Security that complies with federal and state narcotic laws
- (8) The AMP must demonstrate policies that require environmental temperature control and address the effects of hyperthermia and hypothermia extremes on patients and crew.
- (9) The AMP must demonstrate that it is providing equipment to support patient care such as:

- 1810 (A) Cardiac monitor, defibrillator and external pacemaker that are secured and  
1811 positioned so that displays are visible.
- 1812 (B) Ventilator capable of supporting the AMP's mission.
- 1813 (C) ~~3-Chamber i~~ Intravenous administration device pump(s) capable of infusing  
1814 three medications simultaneously.
- 1815 (i) May not substitute mechanical metering devices for infusion pump.
- 1816 (D) Vital sign monitoring capable of non-invasive blood pressure, heart rate,  
1817 external temperature, pulse oxymetry, exhaled carbon-dioxide, endotracheal  
1818 end tidal CO<sub>2</sub>.
- 1819 (E) Additional devices as determined by the AMD.
- 1820 (F) Electric power outlet must be provided with an inverter or appropriate power  
1821 source of sufficient output to meet the requirements of the complete  
1822 specialized equipment package without compromising the operation of any  
1823 electrical aircraft/ambulance equipment. (An extra battery may be the back-up  
1824 power source for equipment.)
- 1825 (G) AMP must document a program of biomedical support for the devices as  
1826 required by the device manufacturers.
- 1827 (10) The AMP must demonstrate written operational policies to address  
1828 personnel staffing:
- 1829 (A) That demonstrates strategies policies to evaluate fitness for duty including rest  
1830 prior to duty time, to minimize duty-time fatigue, to monitor length of shifts,  
1831 number of shifts per week and day-to-night rotations.
- 1832 (B) That documents scheduled clinical personnel shift times that do not exceed 24  
1833 hours.
- 1834 (i) Exceeding twenty-four hours in exigent circumstances is permitted on  
1835 infrequent basis, and must be documented and evaluated by the SMSC.
- 1836 (ii) During exigent shifts beyond twenty-four hours, the AMP must evaluate  
1837 fitness for duty of personnel on an ongoing basis during the additional  
1838 hours.
- 1839 (aa) Exigent shifts beyond twenty-four hours will not be permitted to  
1840 exceed thirty-six hours in total duty time.
- 1841 (iii) That documents clinical personnel twenty-four-hour shifts that:
- 1842 (aa) Do not include any duties beyond those associated with the  
1843 transport service.
- 1844 (bb) Clinical personnel are provided with access to and permission to  
1845 uninterrupted rest after daily medical personnel duties are met.
- 1846 (cc) The physical base of operations includes an appropriate place for  
1847 uninterrupted rest.
- 1848 (iv) That documents communications personnel twelve hour shifts that:

- 1849 (aa) Do not include any duties beyond those associated with the  
1850 transport service.
- 1851 (bb) A secure environment that is free of non communications essential  
1852 distractions.
- 1853 (v) The AMP must demonstrate policies that require all personnel must have  
1854 at least eight hours of rest with no work-related interruptions prior to any  
1855 scheduled shift of twelve hours or more. Aviation and aircraft  
1856 maintenance personnel must adhere to the applicable F.A.R.s.
- 1857 (vi) The AMP must demonstrate policies that all personnel have the right to  
1858 call "time out" and be granted a reasonable rest period if the team member  
1859 (or fellow team member) determines that he or she is unfit or unsafe to  
1860 continue duty, no matter what the shift length. There should be no adverse  
1861 personnel action or undue pressure to continue in this circumstance.
- 1862 (vii) The AMP must demonstrate policies that require management to  
1863 monitor transport volumes and personnel's use of "time out" policy.
- 1864 (viii) AMP must have policies that address crew interface requiring team  
1865 members to stay alert on all legs of the transport, requiring at least one  
1866 team member on empty legs, to assist the pilot in staying alert.
- 1867 (C) The AMP must demonstrate programs to promote personnel well being  
1868 through:
- 1869 (i) Wellness programs that promote healthy lifestyles (e.g. balanced diet,  
1870 weight control, no smoking).
- 1871 (ii) Evidence of an injury prevention program and ergonomic strategies to  
1872 reduce employee injuries.

1873  
1874 157.13 Proposed Rule Language – Fixed Wing Operations  
1875

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1881 degrees about the longitudinal axis) of the patient, and does not compromise  
1882 functioning of monitoring systems, intravenous lines, and manual or  
1883 mechanical ventilation.
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1885 stretcher/sled.
- 1886 ~~(i) The stretcher/sled must be able to be carried to the patient. The AMP must~~  
1887 have a system and procedure in place for loading and unloading patients

- 1888 | ~~(ii)(i)~~ The AMP must demonstrate ~~aircraft stretchers and~~ the means of  
1889 | securing ~~stretcher/sleds that are in flight must be~~ consistent with FAR's.
- 1890 | ~~(iii)(ii)~~ The AMP must demonstrate a policy that indicates the maximum  
1891 | gross weight allowed on the stretcher (inclusive of patient and equipment)  
1892 | as consistent with manufacturer's guidelines.
- 1893 | ~~(iv)(iii)~~ The stretcher must be large enough to carry the 95th percentile  
1894 | adult patient, full length in the supine position. (The 95th percentile adult  
1895 | American male is 6 ft. and 212 lbs.)
- 1896 | ~~(v)(iv)~~ The stretcher should be sturdy and rigid enough that it can support  
1897 | cardiopulmonary resuscitation. If a backboard or equivalent device is  
1898 | required to achieve this, such device will be readily available.
- 1899 | ~~(vi)(v)~~ The head of the stretcher must be capable of being elevated at least  
1900 | 30 degrees for patient care and comfort.
- 1901 | ~~(vii)(vi)~~ If the stretcher is floor supported by its own wheels, there must be  
1902 | a mechanism to secure it in position under all conditions. These restraints  
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1909 | patient at the chest, hips and knees). Belt locations should be adjustable  
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1911 | situations (Such as pregnant patients or specific injury locations)
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1915 | patient from all sides and permits the patients head to be raised at least 30  
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1918 | strap device that allows good access to the patient from all sides and  
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1931 | supplemental lighting system installed in any aircraft in which standard lighting is  
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1934 portable light with a battery source must be available.
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1936 vision provided for night operations, either through the medical configuration  
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1938 the patient care area is acceptable if not able to isolate the patient care area.)
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1945 accessibility of inhaled gases appropriate to the AMP mission profile.
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1947 (A) Storage within the manufacturers recommendations  
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- 1949 (8) The AMP must demonstrate policies that require environmental temperature  
1950 control and address the effects of hyperthermia and hypothermia extremes on  
1951 patients and crew.
- 1952 (9) The AMP must demonstrate that it is providing equipment to support patient care  
1953 such as:  
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1955 positioned so that displays are visible.  
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1957 (C) ~~3-Chamber~~ Intravenous administration device pump(s) capable of infusing  
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1960 (D) Vital sign monitoring capable of non-invasive blood pressure, heart rate,  
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1962 end tidal CO<sub>2</sub>.  
1963 (E) Additional devices as determined by the AMD.  
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1965 source of sufficient output to meet the requirements of the complete  
1966 specialized equipment package without compromising the operation of any  
1967 electrical aircraft/ambulance equipment. (An extra battery may be the back-up  
1968 power source for equipment.)  
1969 (G) AMP must document a program of biomedical support for the devices as  
1970 required by the device manufacturers.
- 1971 (10) The AMP must demonstrate written operational policies to address  
1972 personnel staffing:  
1973 (A) That demonstrates strategies-policies to evaluate fitness for duty including rest  
1974 prior to duty time, to minimize duty-time fatigue, to monitor length of shifts,  
1975 number of shifts per week and day-to-night rotations.

- 1976 (B) That documents scheduled clinical personnel shift times that do not exceed 24  
1977 hours.
- 1978 (i) Exceeding twenty-four hours in exigent circumstances is permitted on  
1979 infrequent basis, and must be documented and evaluated by the SMSC.
- 1980 (ii) During exigent shifts beyond twenty-four hours, the AMP must evaluate  
1981 fitness for duty of personnel on an ongoing basis during the additional  
1982 hours.
- 1983 (aa) Exigent shifts beyond twenty-four hours will not be permitted to  
1984 exceed thirty-six hours in total duty time.
- 1985 (iii) That documents clinical personnel twenty-four-hour shifts that:  
1986 (aa) Do not include any duties beyond those associated with the  
1987 transport service.
- 1988 (bb) Clinical personnel are provided with access to and permission to  
1989 uninterrupted rest after daily medical personnel duties are met.
- 1990 (cc) The physical base of operations includes an appropriate place for  
1991 uninterrupted rest.
- 1992 (iv) That documents communications personnel twelve hour shifts that:  
1993 (aa) Do not include any duties beyond those associated with the  
1994 transport service.
- 1995 (bb) A secure environment that is free of non communications essential  
1996 distractions.
- 1997 (v) The AMP must demonstrate policies that require all personnel must have  
1998 at least eight hours of rest with no work-related interruptions prior to any  
1999 scheduled shift of twelve hours or more. Aviation and aircraft  
2000 maintenance personnel must adhere to the applicable F.A.R.s.
- 2001 (vi) The AMP must demonstrate policies that all personnel have the right to  
2002 call "time out" and be granted a reasonable rest period if the team member  
2003 (or fellow team member) determines that he or she is unfit or unsafe to  
2004 continue duty, no matter what the shift length. There should be no adverse  
2005 personnel action or undue pressure to continue in this circumstance.
- 2006 (vii) The AMP must demonstrate policies that require management to  
2007 monitor transport volumes and personnel's use of "time out" policy.
- 2008 (viii) Fixed wing AMP policies must address preparation for transport  
2009 based on an available patient report and distance of transport (including

- 2010 international transports) to appropriately assess staffing and  
2011 equipment/supplies needs.
- 2012 (ix) AMP must have policies that address crew interface requiring team  
2013 members to stay alert on all legs of the transport, requiring at least one  
2014 team member on empty legs, to assist the pilot in staying alert.
- 2015 (C) The AMP must demonstrate programs to promote personnel well being  
2016 through:
- 2017 (i) Wellness programs that promote healthy lifestyles (e.g. balanced diet,  
2018 weight control, no smoking).
- 2019 (ii) Evidence of an injury prevention program and ergonomic strategies to  
2020 reduce employee injuries.

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## AIRCRAFT DESIGN AND CONFIGURATION

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### PATIENT ACCESS

2026

2027 As an AMP develops its configuration of the aircraft interior design, it should not  
2028 compromise the ability to provide appropriate basic and advanced care or prevent  
2029 providers from performing emergency procedures if necessary. There are many different  
2030 aspects to designing an aircraft configuration, some of which are reviewed as follows.

2031

2032

2033 The aircraft configuration allows for stabilizing the patient's airway, and childbirth  
2034 procedures if that is part of the service's mission.

2035

2036 The aircraft configuration and patient placement allows for safe medical personnel  
2037 egress.

2038

2039

2040

1. Doors must be fully operable from the interior.
2. Doors must be capable of being opened fully and held by a mechanical device.

2041

2042

2043

If the service's mission includes the ability to transport two or more patients aircraft  
configuration should not compromise either patient's airway or the ability to perform  
emergency procedures or impede necessary medical devices on any on-board patient.

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2049

1. The aircraft should have access for simultaneous airway management if there is a two-patient configuration.
2. For all transports, when the aircraft configuration does not allow for full access to the second patient the AMP will establish written guidelines describing types of patients that can be transported in a two-patient stretcher configuration.

- 2050 | 3. For all transports, the AMP will establish strict policies -that reflect the  
2051 F.A.R.s requirements for weight limitations, patient condition based on  
2052 anticipated needs, and patient position in the aircraft.  
2053 4. The AMP will establish policies that address under what circumstances  
2054 two critical patients may or may not be transported, including  
2055 requirements for staffing and equipment.  
2056

2057 When designing aircraft configuration there should be access and necessary space to  
2058 ensure that patient care is capable of being provided from the secured, seat-belted  
2059 position of medical transport personnel.

#### 2060 INHALED GASES

2061  
2062 If inhaled nitric oxide or other inhaled gases are used, it is critical that the AMP develop  
2063 policies to address the following:

- 2064 1. Monitoring gases pressures, lot numbers and refill level requirements.  
2065 2. Cylinder safety.  
2066 3. Transportation regulations.  
2067 4. Occupational exposure.  
2068 5. Equipment issues:  
2069 a. Weight  
2070 b. Mounting in the vehicle  
2071 c. Delivery of the drug  
2072 6. Emergency procedures.

2073 Oxygen is installed according to federal regulations in the aircraft. Medical transport  
2074 personnel should be able to determine how oxygen is functioning by pressure gauges  
2075 mounted in the patient care area.

- 2076 1. Each gas outlet is clearly identified.  
2077 2. Oxygen flow can be stopped at or near the oxygen source from inside the  
2078 aircraft.  
2079 3. The following indicators are accessible to medical transport personnel while  
2080 in flight:  
2081 a. Quantity of oxygen remaining.  
2082 b. Measurement of liter flow.  
2083

#### 2084 MEDICATION AND EQUIPMENT

2085 An AMP relies upon numerous pharmaceuticals to aid patient treatment. These include,  
2086 injectable, topical, infusible, and reconstitutable medications that can come in vials,  
2087 ampoules, preloaded syringes, tubexes and other methods of administration.  
2088

2089 Medications require storage in temperature controlled environments in order to protect  
2090 their patency and shelf life. An AMP should consult with the individual package inserts  
2091 and manufacturers recommendations for proper storage of medications.  
2092

2093 Some of the medications that an AMP team will use are controlled substances under the  
2094 laws of the Drug Enforcement Administration (add DEA reference) and the state's  
2095 requirements (reference) for the AMD and require secure storage and accountability.  
2096

2097 The AMP should consider how their medications are obtained, received, and stored:

- 2098 1. Quantities required to be stocked and available to maintain levels of  
2099 availability.
- 2100 2. Processes to order and receive medications.
- 2101 3. Processes to properly account for medications in inventory  
2102 i. Certain medications are required to be strictly accounted for and  
2103 the policies should reflect accountability and security of these  
2104 controlled substances.
- 2105 4. Storage of medications should be consistent with the manufacturer's  
2106 recommendations for temperature.  
2107

2108 Once the medications are issued to the aircraft in the field the same criteria as above  
2109 apply for security and storage. The AMP must have policies and processes in place to  
2110 provide a means of storing medications within the specified temperature ranges. Some  
2111 methods for this can be limiting the time a medication is able to be administered, storing  
2112 in temperature controlled compartments, storage in temperature controlled areas for  
2113 retrieval by teams prior to a flight. Methods to ensure the security of medications may  
2114 include the use of double safes, double lock systems, limited amounts of medications in  
2115 the field, multiple signatures and witnesses to procurement, administration and wastage.  
2116

2117 **THE INTERIOR OF THE AIRCRAFT OR AMBULANCE SHOULD BE**  
2118 **CLIMATE CONTROLLED.**

2119  
2120 If air conditioning or heat is not available, the AMP will have a policy to address what  
2121 type of patients cannot be transported during extreme temperatures as defined by the  
2122 program and what measures are taken to avoid adverse affects on patients and personnel  
2123 on board.  
2124

2125 There is evidence of tracking requests that were denied (in the QM process) due to the  
2126 affects of hyperthermia or hypothermia on patients and personnel in extreme  
2127 temperatures. (Put under QI section).  
2128  
2129

#### 2130 **MEDICAL EQUIPMENT AVAILABILITY**

2131 A critical component of clinical care for an AMP is the ability to access all the medical  
2132 equipment carried within the aircraft. This includes use of devices as ventilators, IV  
2133 pumps, balloon pumps and vital sign monitors. As such an AMP should have:  
2134

- 2135 1. Cardiac monitor, defibrillator and external pacemaker that are secured and  
2136 positioned so that displays are visible.

- 2137 2. Ventilator capable of supporting the AMP's mission.
- 2138 3. 3 Chamber intravenous administration device.
- 2139 a. May not substitute mechanical metering devices for infusion pump.
- 2140 4. Vital sign monitoring capable of non-invasive blood pressure, heart rate, external
- 2141 temperature, pulse oxymetry, exhaled carbon-dioxide, endotracheal end tidal
- 2142 CO2. May optionally include, invasive line monitoring, internal temperature, and
- 2143 other devices as determined by the AMD.
- 2144 5. Optional support devices may include, Intra Aortic Balloon Pump, iStat portable
- 2145 lab, extra corporeal membrane oxygenation, bi ventricular assist device, invasive
- 2146 pacemaker, and other devices as determined by the AMD.
- 2147 6. Extra batteries or power source(s) must be available for all equipment.
- 2148

2149 It is important for an AMP to understand that medical devices require constant care and  
2150 maintenance. The best way to accomplish this is to consider retaining an external  
2151 company to undertake regular periodic maintenance and to be available for emergency  
2152 repairs. This maintenance should follow the recommendations of the device  
2153 manufacturer.

2154  
2155

## 2156 STAFFING

2157

2158 The service should have written operational policies to address each of the areas listed  
2159 below:

2160

- 2161 1. Scheduling and individual work schedules demonstrate strategies to minimize
- 2162 duty-time fatigue, length of shift, number of shifts per week and day-to-night
- 2163 rotation. (See References in Appendix for circadian rhythm and other fatigue
- 2164 studies.) These criteria do not address payment for overtime regulations, which
- 2165 vary from state to state, and by agreements with labor unions as applicable.
- 2166 2. On-site shifts scheduled for a period to exceed 24 hours are not acceptable.
- 2167 Twenty-four-hour shifts are acceptable if:
- 2168 a. Medical personnel are not required to routinely perform any duties beyond
- 2169 those associated with the transport service.
- 2170 b. Medical personnel are provided with access to and permission to
- 2171 uninterrupted rest after daily medical personnel duties are met.
- 2172 c. The physical base of operations includes an appropriate place for
- 2173 uninterrupted rest.
- 2174 d. Personnel must have at least eight hours of rest with no work-related
- 2175 interruptions prior to any scheduled shift of twelve hours or more. The
- 2176 intent is to preclude back-to-back shifts with other employment,
- 2177 commercial or military flying, or significant fatigue-causing activity prior
- 2178 to a shift.
- 2179 e. Medical personnel must have the right to call "time out" and be granted a
- 2180 reasonable rest period if the team member (or fellow team member)

- 2181 determines that he or she is unfit or unsafe to continue duty, no matter  
2182 what the shift length. There should be no adverse personnel action or  
2183 undue pressure to continue in this circumstance.
- 2184 f. Management should monitor transport volumes and personnel’s use of  
2185 “time out” policy ensures that medical personnel utilize the right to call  
2186 “time-out” appropriately.
- 2187 3. Policies should address minimum rest/duty time requirements for transports that  
2188 are
- 2189 4. international or involve overnight stays, not to exceed more than 16 hours on duty  
2190 in a 24-hour period OR a minimum of two medical team members to allow one  
2191 member rest during the transport and insure another attends the patient.
- 2192 5. Policies that address preparation for transport based on an available patient report  
2193 and distance of transport (including international transports) to appropriately  
2194 assess staffing and equipment/supplies needs.
- 2195 6. Policies address crew interface so that team members are expected to stay alert on  
2196 all legs of the transport, including at least one team member on empty legs, to  
2197 assist the pilot in staying alert (especially in one-pilot operations) and the driver to  
2198 stay alert for ground transports.
- 2199 7. Physical well-being is promoted through:
- 2200 a. Wellness programs that promote healthy lifestyles (e.g. balanced diet,  
2201 weight control, no smoking).
- 2202 b. Evidence of an injury prevention program and ergonomic strategies to  
2203 reduce employee injuries.
- 2204
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## 2210 SECTION 5: ADMINISTRATIVE OVERSIGHT

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### 157.12 Proposed Rule Language – Rotor Wing Operations

- (f) The AMP must demonstrate Program Administrative oversight.
- (1) The AMP must provide an organizational chart that outlines a well defined line of authority.
- (2) This reporting structure should support following chain of command when addressing or handling issues or concerns within the complexity of the air medical program.
- (A) There should be a clear and direct method in place for reporting information within the organization with rapid communication throughout.

- 2222 (B) There should be a mechanism in place for loop closure.
- 2223 (3) The AMP must ensure that a policy manual is available and familiar to all  
2224 personnel.
- 2225 (A) Policies are dated and signed by the appropriate manager(s).  
2226 (B) Policies are reviewed on an annual basis.
- 2227 (4) The AMP must demonstrate that all disciplines understand their role in aviation  
2228 operations and Operational Control.
- 2229 (A) Hospital or non-hospital based program director/administrator must be  
2230 oriented to ~~Federal Flight~~ Aviation Regulations (FAR's) that are pertinent to  
2231 the medical service and state ambulance rules.
- 2232 (5) The AMP should have a policy in place that documents the employer's  
2233 disciplinary process.
- 2234 (6) The AMP will document formal, periodic staff meetings for which minutes will  
2235 be kept for four years.
- 2236 (A) Minutes will document attendance, base identification and who is presiding  
2237 and any discussion items.
- 2238 (B) The AMP must demonstrate a process for disseminating information between  
2239 meetings.
- 2240 (7) The AMP management must demonstrate written guidelines for media issues and  
2241 marketing activities.
- 2242 (8) The AMP must demonstrate a policy that addresses transfers of patient care occur  
2243 from a lower level of care to an equal or higher level of care, except for elective  
2244 transfers.
- 2245 (9) The AMP must demonstrate an appropriate utilization review process through  
2246 trending and tracking requests.
- 2247 (A) The AMP must provide evidence of feedback to the requesting agents and  
2248 feedback from the patient receiving facilities.
- 2249 (B) The AMP must demonstrate utilization review that may be prospective,  
2250 concurrent, or retrospective.
- 2251 (C) The AMP's collected data must be tabulated.  
2252 (D) The AMP must establish trigger criteria for utilization review.
- 2253 (10) The AMP has a written code of ethical conduct that demonstrates ethical  
2254 practices in business, clinical operations, marketing and professional conduct.
- 2255 (A) The AMP must demonstrate a written compliance plan that is in accordance  
2256 with the HHS OIG's "Compliance Guidance for Ambulance Providers".
- 2257 (i) Management of Change
- 2258 (aa) The AMP must have a process to ensure that all personnel are  
2259 made aware of and understand any changes in requirements and  
2260 policies.

2261 (ii) Key Objectives and Continuous Improvement

2262 (aa) The AMP must identify key Ethics Compliance objectives.

2263 (bb) The AMP must demonstrate Ethics Compliance key objectives  
2264 which are tailored to the size, nature and complexity of the  
2265 organization.

2266 (cc) The AMP must demonstrate proactive and reactive monitoring of  
2267 key Ethics Compliance objectives.

2268 (dd) The AMP must demonstrate response to detected offenses and  
2269 development of corrective action plans.

2270 (iii) The AMP must demonstrate a policy that incorporates Just Culture  
2271 principles.

2272 (B) The AMP must demonstrate specific guidelines for transport requests that are  
2273 not performed directly by the AMP for referring flights, subcontracting flights or  
2274 outsourcing flights to Texas Licensed AMPs.

2275 (i) Brokering of flight requests is not permitted.

2276 (C) The AMP will know the capabilities and resources of receiving facilities and  
2277 will transport patients to appropriate facilities within the service region based on direct  
2278 referral, approved EMS plan, or services available.

2279 ~~(10) — The AMP must establish and demonstrate a practice of ethical conduct.~~

2280 ~~(A) The AMP must provide evidence of use of a written code of ethical conduct.~~

2281 ~~(i) The AMP must demonstrate ethical practices in business operations.~~

2282 ~~(ii) The AMP must demonstrate ethical practices in marketing.~~

2283 ~~(iii) The AMP must demonstrate ethical practices in professional conduct.~~

2284 ~~(B) The AMP must demonstrate ethical practices in clinical operations.~~

2285 ~~(C) The AMP must demonstrate a written compliance plan that is in accordance~~  
2286 ~~with the HHS OIG's "Compliance Guidance for Ambulance Providers".~~

2287 ~~(D) The AMP Ethical/Compliance (EC) Plan must contain the following elements:~~

2288 ~~(i) Ethical and Compliance Management Plan (EMP)~~

2289 ~~(aa) — The AMP must clearly states the policies, objectives and~~  
2290 ~~requirements of the EMP.~~

2291 ~~(bb) — The AMP's plan must define each element of the EMP.~~

2292 ~~(cc) — The plan must clearly identify the responsibilities and authority of~~  
2293 ~~key individuals for managing the EMP.~~

2294 (ii) EC Promotion

- 2295                    ~~(aa) — The AMP must clearly demonstrate that EC is a core value through~~  
2296                    ~~procedures, practices and training.~~
- 2297                    ~~(iii) Document and Data Information Management~~
- 2298                    ~~(aa) — The AMP must clearly document and publicize the organization’s~~  
2299                    ~~EC policies, objectives and EMP.~~
- 2300                    ~~(bb) — The AMP demonstrates that the organization provides change~~  
2301                    ~~control for all applicable documents and has a process to communicate~~  
2302                    ~~changes in documents to all personnel.~~
- 2303                    ~~(cc) — The AMP must establish periodic review of all EC documents.~~
- 2304                    ~~(iv) Occurrence Reporting~~
- 2305                    ~~(aa) — The AMP must demonstrate procedures for internal reporting of~~  
2306                    ~~EC concerns.~~
- 2307                    ~~(v) Occurrence Investigation and Analysis~~
- 2308                    ~~(aa) — Every EC concern must be investigated by the AMP.~~
- 2309                    ~~(bb) — All investigations must be documented with an analysis by the~~  
2310                    ~~AMP.~~
- 2311                    ~~(vi) EC Oversight Programs.~~
- 2312                    ~~(aa) — The AMP must demonstrate oversight programs that evaluate the~~  
2313                    ~~effectiveness of the EMP.~~
- 2314                    ~~(bb) — The AMP’s oversight programs must include internal and external~~  
2315                    ~~assessments.~~
- 2316                    ~~(cc) — The AMP must demonstrate that all oversight programs are~~  
2317                    ~~integrated.~~
- 2318                    ~~(vii) — EC Training Requirements~~
- 2319                    ~~(aa) — The AMP must document that all personnel are given introductory~~  
2320                    ~~and recurrent EC training.~~
- 2321                    ~~(bb) — The training requirements for the AMP must include:~~
- 2322                    ~~— 1. An EC orientation for all new personnel, stressing the AMP’s~~  
2323                    ~~commitment to ethics and compliance including everyone’s role in~~  
2324                    ~~the EMP.~~
- 2325                    ~~— 2. A tracking mechanism for training requirements.~~
- 2326                    ~~— 3. Access to conferences, workshops, literature and trade journals.~~
- 2327                    ~~(viii) — Management of Change~~

- 2328 ~~(aa) — The AMP must have a process to ensure that all personnel are~~
- 2329 ~~made aware of and understand any changes in requirements and~~
- 2330 ~~policies.~~
- 2331 ~~(ix) Key Objectives and Continuous Improvement~~
- 2332 ~~(aa) — The AMP must identify key EC objectives.~~
- 2333 ~~(bb) — The AMP must demonstrate EC key objectives which are tailored~~
- 2334 ~~to the size, nature and complexity of the organization.~~
- 2335 ~~(cc) — The AMP must demonstrate proactive and reactive monitoring of~~
- 2336 ~~key EC objectives.~~
- 2337 ~~(dd) — The AMP must demonstrate response to detected offenses and~~
- 2338 ~~development of corrective action plans.~~

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#### 157.13 Proposed Rule Language – Fixed Wing Operations

- 2343 (f) The AMP must demonstrate Program Administrative oversight.
- 2344 (1) The AMP must provide an organizational chart that outlines a well defined line of
- 2345 authority.
- 2346 (2) This reporting structure should support following chain of command when
- 2347 addressing or handling issues or concerns within the complexity of the air medical
- 2348 program.
- 2349 (A) There should be a clear and direct method in place for reporting information
- 2350 within the organization with rapid communication throughout.
- 2351 (B) There should be a mechanism in place for loop closure.
- 2352 (3) The AMP must ensure that a policy manual is available and familiar to all
- 2353 personnel.
- 2354 (A) Policies are dated and signed by the appropriate manager(s).
- 2355 (B) Policies are reviewed on an annual basis.
- 2356 (4) The AMP must demonstrate that all disciplines understand their role in aviation
- 2357 operations and Operational Control.
- 2358 (A) Hospital or non-hospital based program director/administrator must be
- 2359 oriented to ~~Federal Flight~~ Aviation Regulations (FAR's) that are pertinent to
- 2360 the medical service and state ambulance rules.
- 2361 (5) The AMP should have a policy in place that documents the employer's
- 2362 disciplinary process.
- 2363 (6) The AMP will document formal, periodic staff meetings for which minutes will
- 2364 be kept for four years.

- 2365 (A) Minutes will document attendance, base identification and who is presiding  
2366 and any discussion items.
- 2367 (B) The AMP must demonstrate a process for disseminating information between  
2368 meetings.
- 2369 (7) The AMP management must demonstrate written guidelines for media issues and  
2370 marketing activities.
- 2371 (8) The AMP must demonstrate a policy that addresses transfers of patient care occur  
2372 from a lower level of care to an equal or higher level of care, except for elective  
2373 transfers.
- 2374 (9) The AMP must demonstrate an appropriate utilization review process through  
2375 trending and tracking requests.
- 2376 (A) The AMP must provide evidence of feedback to the requesting agents and  
2377 feedback from the patient receiving facilities.
- 2378 (B) The AMP must demonstrate utilization review that may be prospective,  
2379 concurrent, or retrospective.
- 2380 (C) The AMP's collected data must be tabulated.
- 2381 (D) The AMP must establish trigger criteria for utilization review.
- 2382 (10) The AMP has a written code of ethical conduct that demonstrates ethical  
2383 practices in business, clinical operations, marketing and professional conduct.
- 2384 (A) The AMP must demonstrate a written compliance plan that is in accordance  
2385 with the HHS OIG's "Compliance Guidance for Ambulance Providers".
- 2386 (i) Management of Change
- 2387 (aa) The AMP must have a process to ensure that all personnel are  
2388 made aware of and understand any changes in requirements and  
2389 policies.
- 2390 (ii) Key Objectives and Continuous Improvement
- 2391 (aa) The AMP must identify key Ethics Compliance objectives.
- 2392 (bb) The AMP must demonstrate Ethics Compliance key objectives  
2393 which are tailored to the size, nature and complexity of the  
2394 organization.
- 2395 (cc) The AMP must demonstrate proactive and reactive monitoring of  
2396 key Ethics Compliance objectives.
- 2397 (dd) The AMP must demonstrate response to detected offenses and  
2398 development of corrective action plans.
- 2399 (iii) The AMP must demonstrate a policy that incorporates Just Culture  
2400 principles.

2401 (B) The AMP must demonstrate specific guidelines for transport requests that are  
2402 not performed directly by the AMP for referring flights, subcontracting flights or  
2403 outsourcing flights to Texas Licensed AMPs.

2404 (i) Brokering of flight requests is not permitted.

2405 (C) The AMP will know the capabilities and resources of receiving facilities and  
2406 will transport patients to appropriate facilities within the service region based on direct  
2407 referral, approved EMS plan, or services available.

2408 ~~(10) — The AMP must establish and demonstrate a practice of ethical conduct.~~

2409 ~~(A) The AMP must provide evidence of use of a written code of ethical conduct.~~

2410 ~~(i) The AMP must demonstrate ethical practices in business operations.~~

2411 ~~(ii) The AMP must demonstrate ethical practices in marketing.~~

2412 ~~(iii) The AMP must demonstrate ethical practices in professional conduct.~~

2413 ~~(B) The AMP must demonstrate ethical practices in clinical operations.~~

2414 ~~(C) The AMP must demonstrate a written compliance plan that is in accordance~~  
2415 ~~with the HHS OIG’s “Compliance Guidance for Ambulance Providers”.~~

2416 ~~(D) The AMP Ethical/Compliance (EC) Plan must contain the following elements:~~

2417 ~~(i) Ethical and Compliance Management Plan (EMP)~~

2418 ~~(aa) — The AMP must clearly states the policies, objectives and~~  
2419 ~~requirements of the EMP.~~

2420 ~~(bb) — The AMP’s plan must define each element of the EMP.~~

2421 ~~(cc) — The plan must clearly identify the responsibilities and authority of~~  
2422 ~~key individuals for managing the EMP.~~

2423 ~~(ii) EC Promotion~~

2424 ~~(aa) — The AMP must clearly demonstrate that EC is a core value through~~  
2425 ~~procedures, practices and training.~~

2426 ~~(iii) Document and Data Information Management~~

2427 ~~(aa) — The AMP must clearly document and publicize the organization’s~~  
2428 ~~EC policies, objectives and EMP.~~

2429 ~~(bb) — The AMP demonstrates that the organization provides change~~  
2430 ~~control for all applicable documents and has a process to communicate~~  
2431 ~~changes in documents to all personnel.~~

2432 ~~(cc) The AMP must establish periodic review of all EC documents.~~

2433 ~~(iv) Occurrence Reporting~~

2434 ~~(aa) — The AMP must demonstrate procedures for internal reporting of~~  
2435 ~~EC concerns.~~

2436 ~~(v) Occurrence Investigation and Analysis~~

2437 ~~(aa) — Every EC concern must be investigated by the AMP.~~

2438 ~~(bb) — All investigations must be documented with an analysis by the AMP.~~

2439 ~~(vi) EC Oversight Programs.~~

2440 ~~(aa) — The AMP must demonstrate oversight programs that evaluate the~~  
2441 ~~effectiveness of the EMP.~~

2442 ~~(bb) — The AMP's oversight programs must include internal and external~~  
2443 ~~assessments.~~

2444 ~~(cc) — The AMP must demonstrate that all oversight programs are~~  
2445 ~~integrated.~~

2446 ~~(vii) — EC Training Requirements~~

2447 ~~(aa) — The AMP must document that all personnel are given introductory~~  
2448 ~~and recurrent EC training.~~

2449 ~~(bb) — The training requirements for the AMP must include:~~

2450 ~~— 1. An EC orientation for all new personnel, stressing the AMP's~~  
2451 ~~commitment to ethics and compliance including everyone's role in~~  
2452 ~~the EMP.~~

2453 ~~— 2. A tracking mechanism for training requirements.~~

2454 ~~— 3. Access to conferences, workshops, literature and trade journals.~~

2455 ~~(viii) — Management of Change~~

2456 ~~(aa) — The AMP must have a process to ensure that all personnel are~~  
2457 ~~made aware of and understand any changes in requirements and~~  
2458 ~~policies.~~

2459 ~~(ix) Key Objectives and Continuous Improvement~~

2460 ~~(aa) — The AMP must identify key EC objectives.~~

2461 ~~(bb) — The AMP must demonstrate EC key objectives which are tailored~~  
2462 ~~to the size, nature and complexity of the organization.~~

2463 ~~(cc) — The AMP must demonstrate proactive and reactive monitoring of~~  
2464 ~~key EC objectives.~~

2465 ~~(dd) — The AMP must demonstrate response to detected offenses and~~  
2466 ~~development of corrective action plans.~~

2467

2468

## TAP ADMINISTRATIVE OVERSIGHT

2469

2470

2471 Administrative support is the foundation of any successful program. There must be  
2472 active participation from every discipline to ensure program viability. A successful  
2473 program is similar to a puzzle in which every piece must fit well together to create the  
2474 final product. A supportive administration provides the framework for the program to  
2475 grow and function in. Successful leadership combines both human skill, the ability to  
2476 lead and work effectively in a group, and conceptual skill for critical policy decision  
2477 making that involves the ability to see the organization as a whole, recognize how various  
2478 functions interrelate and understand the dynamics of the industry, community and State  
2479 EMS system to maintain a harmonious program.

2480

2481 As a part of a well-defined line of authority an organizational chart will define how the  
2482 medical transport service fits into the governing/sponsoring institution, agency or  
2483 corporation. This reporting structure should support following chain of command when  
2484 addressing or handling issues or concerns within the complexity of the air medical  
2485 program. There should be clear guidelines describing the lines of authority. There should  
2486 be a clear and direct method in place for reporting information, problems and concerns  
2487 and a mechanism in place for loop closure and the structure of the organization supports  
2488 rapid communication throughout.

2489

2490 Medical personnel must understand that the pilot has ultimate authority for the aircraft  
2491 and safe operations. Managers are aware of the names and titles of each person  
2492 authorized by the FAA Part 135 Certificate Holder and respect their duty to exercise  
2493 operational control over the aviation part of the program. Hospital or non-hospital based  
2494 program director/administrator must be oriented to FARs that are pertinent to the medical  
2495 service and state ambulance rules and regulations pertaining to ground ambulances.  
2496 Hospital or non-hospital based program director/administrator is oriented to how  
2497 management can affect aeronautical decision-making and utilizes AMRM or equivalent  
2498 as a tool to keep the lines of communication open.

2499

2500 A policy should be in place that documents the employer's disciplinary process and  
2501 protects employees from capricious actions. The disciplinary process should be well  
2502 defined and provide documentation of how this process is adhered to.

2503

2504 Staff meetings are one of the best ways to encourage active communication and to  
2505 provide information to all members in the program. There must be formal, periodic staff  
2506 meetings for which minutes will be kept. Minutes will document who attended, base  
2507 identification (if multiple bases), who is presiding and any discussion (versus  
2508 agenda/topics only). There program should demonstrate defined methods, such as a staff  
2509 notebook, for disseminating information between meetings.

2510

2511 For public or private institutions and agencies that contract with an aviation firm to  
2512 provide medical services or an ambulance firm to provide ground transport services, there

2513 should be a policy that specifies the lines of authority between the medical management  
2514 team and the aviation/ambulance management team.

2515

2516 It is important for management to set written guidelines for press-related issues and  
2517 marketing activities.

2518

2519 Management ensures, through policy, that all transfers of patient care occur from a lower  
2520 level of care to an equal or higher level of care except for elective transfers for patient  
2521 convenience or returning a patient to a referring facility/residence.

2522

2523 Management ensures an appropriate utilization review process through trending and  
2524 tracking requests. There is evidence of feedback to the requesting agents and feedback  
2525 from the patient receiving facilities. Utilization review may be prospective, concurrent, or  
2526 retrospective. The collected data should be tabulated in ways that can be used to measure,  
2527 report on, and benchmark system performance, generating information useful for ongoing  
2528 feedback and process improvement. The following criteria may be considered but not  
2529 limited to:

2530

- 2531 1. Medical denials or requests that should have been denied for a specific transport  
2532 mode
- 2533 2. (such as RW when ground would have been appropriate) are tracked and  
2534 evaluated specific to the program's scope of care and mission.
- 2535 3. Specialized medical transport personnel expertise and/or equipment available  
2536 during transport that would otherwise not be available.
- 2537 4. Safety of the transport environment.
- 2538 5. Cost of the transport:
  - 2539 a. Emergency transports do not require a guaranteed payment prior to  
2540 transport.
  - 2541 b. Calling agents for non-emergent requests are assisted with information  
2542 about the cost of the transport as well as alternative, more economical (and  
2543 equally appropriate) means of transport, if available.
- 2544 6. A structured, periodic review of transports (to determine transport appropriateness  
2545 or that the mode of transport enhances medical outcome, safety or cost  
2546 effectiveness over other modes of transport) performed at least semiannually and  
2547 resulting in a written report.
- 2548 7. The following indicators may trigger a review of the record to determine the  
2549 medical appropriateness of the transport based upon patients:
  - 2550 a. Who are discharged home directly from the Emergency Department, or  
2551 discharged
  - 2552 b. within 24 hours of admission.
  - 2553 c. Who are transported without an IV line or oxygen.
  - 2554 d. Upon whom CPR is in progress at referring location.
  - 2555 e. Who are not transferred from a critical care unit.
  - 2556 f. Who are "scheduled transports."

- 2557 g. Who is air transported more than once for the same illness or injury within  
2558 24 hours.
- 2559 h. Who are transported from the scene of injury with a trauma score of 15 or  
2560 greater or fails to meet area-specific triage criteria for a critically injured  
2561 trauma patient.
- 2562 i. Who are treated at scene, but not transported.
- 2563 1. Who are not transferred bedside to bedside by the flight team.
- 2564 j. Who are transported interfacility, and the receiving facility is not a higher  
2565 level of care than the referring facility.
- 2566 k. Who are transported from the scene of injury to any hospital which was  
2567 not the closest appropriate and available trauma center (based on regional  
2568 trauma plans, if present).
- 2569 l. Who are flown initially by fixed-wing and transported from the airport to  
2570 the receiving facility by helicopter.
- 2571 m. Who are ground transported with red lights and sirens.
- 2572 n. Who are served by an inappropriate aircraft (time/distance/speed  
2573 considerations etc.)
- 2574 o. Who are served by an inappropriate team (i.e. ALS team used but patient  
2575 requires critical care skills)
- 2576 p. Who are served by an inappropriate ambulance that met the aircraft to  
2577 continue transport with the level of care, equipment and supplies  
2578 inappropriate to the patient's specific need.
- 2579 8. Requests that are referred or subcontracted must be included in each review for  
2580 appropriateness.

2581  
2582 Management ensures that patient care records, meeting minutes, policies and procedures  
2583 are stored according to hospital or agency policies and HIPAA regulations are indicative  
2584 of the individual medical transport service's sensitivity to patient confidentiality.

- 2585  
2586 1. A record of patient care is completed, and a copy remains at the receiving  
2587 facility for appropriate continuity of care.
- 2588 a. A policy outlines minimal requirements for items to be documented in the  
2589 patient care records that include:
- 2590 ● Purpose of the transport
  - 2591 ● Treatments, medications, intake and output and patient's response to  
2592 treatments and medications.
  - 2593 ● Signature of each care provider and clarity as to what care was performed  
2594 by each provider (administering medications and performing procedures)  
2595 and indicates who actually documented patient information.
  - 2596 ● Transport facilities (to and from) and whom report was given to at the  
2597 receiving facility.
  - 2598 ● Patient condition at certain predetermined altitudes.
- 2599 b. Records are stored according to hospital or agency medical records policies and  
2600 are indicative of the individual medical transport service's sensitivity to patient  
2601 confidentiality.

- 2602
- 2603 2. Meeting minutes (Staff, Safety, QM meetings etc.) are kept on file and maintained for
- 2604 a minimum of three years.
- 2605 a. Minutes are dated, and personnel present are clearly identified by title (e.g.,
- 2606 Director, RN, EMT-P, RRT).
- 2607 3. A policy manual is available and familiar to all personnel.
- 2608 a. Policies are dated and signed by the appropriate manager(s).
- 2609 b. Policies are reviewed on an annual basis as verified by dated manager’s
- 2610 signature on a cover sheet or on respective policies.
- 2611
- 2612 Management monitors and evaluates the quality and appropriateness of the medical
- 2613 transport service through an active Quality Management (QM) program, including the
- 2614 following:
- 2615 1. At a minimum, reviews the periodic QM committee reports.
- 2616 2. Encourages staff participation in the QM Program.
- 2617 3. Promotes the effectiveness of the QM program through active participation by
- 2618 management in the program and by sponsoring active communication
- 2619 pathways bidirectionally between staff and management.
- 2620
- 2621

## ETHICAL AND COMPLIANCE CONSIDERATIONS

### ETHICAL CONSIDERATIONS

2622

2623

2624

2625 The material outlined in this section is intended ~~for guidance~~ to guide the applicant ~~for~~

2626 ~~the TAP in order~~ to better understand ethical considerations in providing Air Medical

2627 Services for the citizens of the State of Texas. Each system, based on its size and

2628 complexity, should build and adapt an appropriate operational systems based on these

2629 guidelines.

2630

2631 ~~In the AAMS Membership Task Force meeting held in January 2008 (Kinkade, 2008),~~

2632 ~~the recommendation to refine the AAMS core values included the following:~~

2633

- 2634 1. ~~Commitment—Evidenced in behavior that:~~
- 2635 ● ~~Places patient care before self-interest~~
- 2636 ● ~~Celebrates common dedication to teamwork, compassion for patients, and~~
- 2637 ~~a passion for safety and quality care~~
- 2638 2. ~~Integrity—Evidenced in behavior that:~~
- 2639 ● ~~Demonstrates commitment to high professional standards~~
- 2640 ● ~~Promotes ethical behavior among all individuals involved in the work of~~
- 2641 ~~the association~~
- 2642 3. ~~Respect—Evidenced in behavior that:~~
- 2643 ● ~~Honors the exchange of ideas~~
- 2644 ● ~~Embraces diverse viewpoints~~

2645 4. ~~Responsibility—Evidenced in behavior that:~~

- 2646 • ~~Exemplifies transparent decision making~~
- 2647 • ~~Values honest communication and productive dialogue~~

2648  
2649 ~~Business and clinical ethical standards can be drawn from many sources including the~~  
2650 ~~following excerpts are taken from:~~

2651 ~~COMPLETE GUIDE TO ETHICS MANAGEMENT: AN ETHICS TOOLKIT~~  
2652 ~~FOR MANAGERS (MCNAMARA)~~

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2653  
2654 ~~ONE DESCRIPTION OF A HIGHLY ETHICAL ORGANIZATION~~

---

2655  
2656 ~~Mark Pastin, in The Hard Problems of Management: Gaining the Ethics Edge~~  
2657 ~~(Jossey-Bass, 1986), provides the following four principles for highly ethical~~  
2658 ~~organizations:~~

- 2659 1. ~~They are at ease interacting with diverse internal and external stakeholder groups.~~  
2660 ~~The ground rules of these firms make the good of these stakeholder groups part of~~  
2661 ~~the organizations' own good.~~
- 2662 2. ~~They are obsessed with fairness. Their ground rules emphasize that the other~~  
2663 ~~persons' interests count as much as their own.~~
- 2664 3. ~~Responsibility is individual rather than collective, with individuals assuming~~  
2665 ~~personal responsibility for actions of the organization. These organizations'~~  
2666 ~~ground rules mandate that individuals are responsible to themselves.~~
- 2667 4. ~~They see their activities in terms of purpose. This purpose is a way of operating~~  
2668 ~~that members of the organization highly value. And purpose ties the organization~~  
2669 ~~to its environment.~~

2670  
2671 ~~Doug Wallace asserts the following characteristics of a high integrity organization:~~

- 2672 1. ~~There exists a clear vision and picture of integrity throughout the organization.~~
- 2673 2. ~~The vision is owned and embodied by top management, over time.~~
- 2674 3. ~~The reward system is aligned with the vision of integrity.~~
- 2675 4. ~~Policies and practices of the organization are aligned with the vision; no mixed~~  
2676 ~~messages.~~
- 2677 5. ~~It is understood that every significant management decision has ethical value~~  
2678 ~~dimensions.~~
- 2679 6. ~~Everyone is expected to work through conflicting stakeholder value perspectives.~~

2680  
2681 ~~ETHICS MANAGEMENT PROGRAMS: AN OVERVIEW~~

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2682  
2683 ~~About Ethics Management Programs Organizations can manage ethics in their~~  
2684 ~~workplaces by establishing an ethics management program. Brian Schrag, Executive~~  
2685 ~~Secretary of the Association for Practical and Professional Ethics, clarifies. "Typically,~~  
2686 ~~ethics programs convey corporate values, often using codes and policies to guide~~

2687 ~~decisions and behavior, and can include extensive training and evaluating, depending on~~  
2688 ~~the organization. They provide guidance in ethical dilemmas." Rarely are two programs~~  
2689 ~~alike.~~

### 2691 ~~BENEFITS OF MANAGING ETHICS AS A PROGRAM~~

2692  
2693 ~~There are numerous benefits in formally managing ethics as a program, rather than as a~~  
2694 ~~one-shot effort when it appears to be needed. Ethics programs:~~

- 2695 ~~• Establish organizational roles to manage ethics~~
- 2696 ~~• Schedule ongoing assessment of ethics requirements~~
- 2697 ~~• Establish required operating values and behaviors~~
- 2698 ~~• Align organizational behaviors with operating values~~
- 2699 ~~• Develop awareness and sensitivity to ethical issues~~
- 2700 ~~• Integrate ethical guidelines to decision making~~
- 2701 ~~• Structure mechanisms to resolving ethical dilemmas~~
- 2702 ~~• Facilitate ongoing evaluation and updates to the program~~
- 2703 ~~• Help convince employees that attention to ethics is not just a knee-jerk reaction~~  
2704 ~~done to get out of trouble or improve public image~~

### 2706 ~~8 GUIDELINES FOR MANAGING ETHICS IN THE WORKPLACE~~

2707  
2708 ~~The following guidelines ensure the ethics management program is operated in a~~  
2709 ~~meaningful fashion:~~

- 2710 1. ~~Recognize that managing ethics is a process. Ethics is a matter of values and~~  
2711 ~~associated behaviors. Values are discerned through the process of ongoing~~  
2712 ~~reflection. Therefore, ethics programs may seem more process-oriented than most~~  
2713 ~~management practices. Managers tend to be skeptical of process-oriented~~  
2714 ~~activities, and instead prefer processes focused on deliverables with~~  
2715 ~~measurements. However, experienced managers realize that the deliverables of~~  
2716 ~~standard management practices (planning, organizing, motivating, controlling) are~~  
2717 ~~only tangible representations of very process-oriented practices. For example, the~~  
2718 ~~process of strategic planning is much more important than the plan produced by~~  
2719 ~~the process. The same is true for ethics management. Ethics programs do produce~~  
2720 ~~deliverables, e.g., codes, policies and procedures, budget items, meeting minutes,~~  
2721 ~~authorization forms, newsletters, etc. However, the most important aspect from an~~  
2722 ~~ethics management program is the process of reflection and dialogue that~~  
2723 ~~produces these deliverables.~~
- 2724 2. ~~The bottom line of an ethics program is accomplishing preferred behaviors in the~~  
2725 ~~workplace. As with any management practice, the most important outcome is~~  
2726 ~~behaviors preferred by the organization. The best of ethical values and intentions~~  
2727 ~~are relatively meaningless unless they generate fair and just behaviors in the~~  
2728 ~~workplace. That's why practices that generate lists of ethical values, or codes of~~

- 2729 ~~ethics, must also generate policies, procedures and training that translate those~~  
2730 ~~values to appropriate behaviors.~~
- 2731 3. ~~The best way to handle ethical dilemmas is to avoid their occurrence in the first~~  
2732 ~~place. That's why practices such as developing codes of ethics and codes of~~  
2733 ~~conduct are so important. Their development sensitizes employees to ethical~~  
2734 ~~considerations and minimizes the chances of unethical behavior occurring in the~~  
2735 ~~first place.~~
- 2736 4. ~~Make ethics decisions in groups, and make decisions public, as appropriate. This~~  
2737 ~~usually produces better quality decisions by including diverse interests,~~  
2738 ~~perspectives, and increases the credibility of the decision process and outcome by~~  
2739 ~~reducing suspicion of unfair bias.~~
- 2740 5. ~~Integrate ethics management with other management practices. When developing~~  
2741 ~~the values statement during strategic planning, include ethical values preferred in~~  
2742 ~~the workplace. When developing personnel policies, reflect on what ethical values~~  
2743 ~~you'd like to be most prominent in the organization's culture and then design~~  
2744 ~~policies to produce these behaviors.~~
- 2745 6. ~~Use cross functional teams when developing and implementing the ethics~~  
2746 ~~management program. It's vital that the organization's employees feel a sense of~~  
2747 ~~participation and ownership in the program if they are to adhere to its ethical~~  
2748 ~~values. Therefore, include employees in developing and operating the program.~~
- 2749 7. ~~Value forgiveness. This may sound rather religious or preachy to some, but it's~~  
2750 ~~probably the most important component of any management practice. An ethics~~  
2751 ~~management program may at first actually increase the number of ethical issues to~~  
2752 ~~be dealt with because people are more sensitive to their occurrence.~~  
2753 ~~Consequently, there may be more occasions to address people's unethical~~  
2754 ~~behavior. The most important ingredient for remaining ethical is trying to be~~  
2755 ~~ethical. Therefore, help people recognize and address their mistakes and then~~  
2756 ~~support them to continue to try operate ethically.~~
- 2757 8. ~~Note that trying to operate ethically and making a few mistakes is better than not~~  
2758 ~~trying at all. Some organizations have become widely known as operating in a~~  
2759 ~~highly ethical manner, e.g., Ben and Jerry's, Johnson and Johnson, Aveda,~~  
2760 ~~Hewlett Packard, etc. Unfortunately, it seems that when an organization achieves~~  
2761 ~~this strong public image, it's placed on a pedestal by some business ethics writers.~~  
2762 ~~All organizations are comprised of people and people are not perfect. However,~~  
2763 ~~when a mistake is made by any of these organizations, the organization has a long~~  
2764 ~~way to fall. In our increasingly critical society, these organizations are accused of~~  
2765 ~~being hypocritical and they are soon pilloried by social critics. Consequently,~~  
2766 ~~some leaders may fear sticking their necks out publicly to announce an ethics~~  
2767 ~~management program. This is extremely unfortunate. It's the trying that counts~~  
2768 ~~and brings peace of mind — not achieving a heroic status in society.~~  
2769

2770

## 6 KEY ROLES AND RESPONSIBILITIES IN ETHICS MANAGEMENT

2771

2772 Depending on the size of the organization, certain roles may prove useful in managing  
2773 ethics in the workplace. These can be full-time roles or part-time functions assumed by  
2774 someone already in the organization. Small organizations certainly will not have the  
2775 resources to implement each of the following roles using different people in the  
2776 organization. However, the following functions points out responsibilities that should be  
2777 included somewhere in the organization.

2778

- 2779 1. The organization's chief executive must fully support the program. If the chief  
2780 executive isn't fully behind the program, employees will certainly notice -- and  
2781 this apparent hypocrisy may cause such cynicism that the organization may be  
2782 worse off than having no formal ethics program at all. Therefore, the chief  
2783 executive should announce the program, and champion its development and  
2784 implementation. Most important, the chief executive should consistently aspire to  
2785 lead in an ethical manner. If a mistake is made, admit it.
- 2786 2. Consider establishing an ethics committee at the board level. The committee  
2787 would be charged to oversee development and operation of the ethics  
2788 management program.
- 2789 3. Consider establishing an ethics management committee. It would be charged with  
2790 implementing and administrating an ethics management program, including  
2791 administrating and training about policies and procedures, and resolving ethical  
2792 dilemmas. The committee should be comprised of senior officers.
- 2793 4. Consider assigning/developing an ethics officer. This role is becoming more  
2794 common, particularly in larger and more progressive organizations. The ethics  
2795 officer is usually trained about matters of ethics in the workplace, particularly  
2796 about resolving ethical dilemmas.
- 2797 5. Consider establishing an ombudsperson. The ombudsperson is responsible to help  
2798 coordinate development of the policies and procedures to institutionalize moral  
2799 values in the workplace. This position usually is directly responsible for resolving  
2800 ethical dilemmas by interpreting policies and procedures.
- 2801 6. Note that one person must ultimately be responsible for managing the ethics  
2802 management program.

2803

2804 The intent of this section is to give guidance and resources to Air Medical Providers.  
2805 Ethics are a crucial core aspect for all organizations to incorporate within their  
2806 operational systems. This Rule does not require a specific ethical standard design but  
2807 permits organizations, based on their size and complexity, to build an ethical program  
2808 based on their individual needs.

2809

#### COMPLIANCE GUIDELINES

2810 There is a corporate compliance officer or designated person responsible for ensuring that  
2811 the service is in compliance with external laws and regulations, payer requirements and  
2812 internal policies and procedures.

2813

2814 Compliance issues may include but are not limited to:

- 2815 1. HIPAA
- 2816 2. Federal Civil Statutes (False Claim Act)
- 2817 3. Balanced Budget Act of 1997
- 2818 4. OIG Compliance Program Guidance
- 2819 5. OIG annual work plans (hospital affiliated)
- 2820 6. Anti-kickback and Stark Laws
- 2821 7. EMTALA

2822

2823 The compliance program shall include:

- 2824 1. Written policies and procedures.
- 2825 2. Designation of a compliance officer or assign responsibility to a specific
- 2826 individual.
- 2827 3. Conducting effective training and education for staff with documented initial and
- 2828 ongoing competency.
- 2829 4. Developing effective lines of communication.
- 2830 5. Enforcing standards through well-published disciplinary guidelines.
- 2831 6. Auditing and monitoring.
- 2832 7. Responding to detected offenses and developing corrective action.

2833

2834

#### JUST CULTURE

2835 The phrase “just culture” was popularized in the patient safety lexicon by a report that

2836 outlined principles for achieving a culture in which frontline personnel feel comfortable

2837 disclosing errors—including their own—while maintaining professional accountability.

2838

2839 Traditionally, health care’s culture has held individuals accountable for all errors or

2840 mishaps that befall patients under their care. By contrast, a just culture recognizes that

2841 individual practitioners should not be held accountable for system failings over which

2842 they have no control. A just culture also recognizes many individual or “active” errors

2843 represent predictable interactions between human operators and the systems in which

2844 they work. However, in contrast to a culture that touts “no blame” as its governing

2845 principle, a just culture does not tolerate conscious disregard of clear risks to patients or

2846 gross misconduct (eg, falsifying a record, performing professional duties while

2847 intoxicated).

2848

2849 In summary, a just culture recognizes that competent professionals make mistakes and

2850 acknowledges that even competent professionals will develop unhealthy norms

2851 (shortcuts, “routine rule violations”), but has zero tolerance for reckless behavior.

2852 [Marx D. Patient Safety and the “Just Culture”: A Primer for Health Care Executives.](http://www.mers-tm.org/support/Marx_Primer.pdf)  
2853 [New York, NY: Columbia University; 2001. Available at: http://www.mers-](http://www.mers-tm.org/support/Marx_Primer.pdf)  
2854 [tm.org/support/Marx\\_Primer.pdf](http://www.mers-tm.org/support/Marx_Primer.pdf)

2855  
2856

### SURVEY COORDINATOR

2857

- 2858 ● ~~Agency must designate a Survey Coordinator who is responsible for the~~  
2859 ~~administrative functions related to the Air Medical Service Program~~
- 2860 ● ~~Dedicate staff time sufficient to fulfill the programmatic requirements of CCMP~~
- 2861 ● ~~Provide Air Medical Service program organizational chart and describe the~~  
2862 ~~administrative reporting structure of the Survey Coordinator~~
- 2863 ● ~~Document quality improvement experience and/or training sufficient to~~  
2864 ~~implement and maintain Texas Air Medical Service standards~~

2865  
2866

## SECTION 6: COMMUNICATION CENTER

2867

2868

### 157.12 Proposed Rule Language – Rotor Wing Operations

2869

2870

2871

(g) The AMP will have a center to receive and coordinate all requests for the medical transport service.

2872

2873

(1) The center will be staffed by Communication Specialists.

2874

(A) Communication Specialists will be utilized to maintain contact with the medical personnel for response ready status and/or patient coordination and communication of patient status change.

2875

2876

2877

(2) The Communication Center shall be equipped with communication capabilities appropriate to the mission profile.

2878

2879

(A) The AMP should have a backup emergency power source for communications equipment, or a policy delineating methods for maintaining communications during power outages and in disaster situations.

2880

2881

2882

(3) The AMP must retain paperwork/database information regarding transport requests for a period of four years.

2883

2884

(A) The AMP must have a method of audio recording or documenting call taking and radio traffic.

2885

2886

(4) The AMP will demonstrate written policies concerning communications.

2887

(A) The Communications Specialist must document all aspects of the transport.

2888

(B) The AMP shall have a written policy requiring that all transport requests are screened for turn downs by other agencies.

2889

- 2890 (i) Information obtained from flight screening shall be communicated  
2891 internally and externally.
- 2892 (C) The AMP shall have written policies outlining Visual Flight Rule (VFR) flight  
2893 following requirements.
- 2894 (D) The AMP must demonstrate policies that address post flight debriefings and  
2895 shift briefings with Communication Specialist.
- 2896 (E) The AMP must maintain written records collecting data as required by  
2897 Federal, State and Local requirements.
- 2898 (5) The AMP will provide initial training and annual competencies for  
2899 Communication Specialists.
- 2900 (A) Initial and recurrent training ~~shall include~~:
- 2901 (i) Navigation techniques and map reading skills.
- 2902 (ii) Radio operations.
- 2903 (iii) Telephonic equipment training.
- 2904 (iv) Hazardous materials protocols and procedures.
- 2905 (v) Weather interpretation training.
- 2906 (vi) Stress recognition and management.
- 2907 (vii) Customer service/public relations/phone etiquette.
- 2908 (viii) Computer literacy and skills.
- 2909 (ix) Current Post Accident/Incident Plan (PAIP).
- 2910 (6) The AMP shall demonstrate participation in weather turndown notification  
2911 systems and other reporting mechanisms appropriate to your region.
- 2912 (7) The AMP shall have written policies regarding communication center operations  
2913 during IFR flights.
- 2914 (8) The AMP should have a backup system in place for the computerized systems  
2915 utilized for flight following and mapping.

2916  
2917  
2918 157.13 Proposed Rule Language – Fixed Wing Operations  
2919

- 2920 (g) The AMP will have a Communication Specialist to receive and coordinate all  
2921 requests for the medical transport service.
- 2922 (8) Communication Specialists will be utilized to maintain contact with the medical  
2923 personnel for response ready status and/or patient coordination and  
2924 communication of patient status change.
- 2925 (9) The Communication Specialist shall be equipped with communication capabilities  
2926 appropriate to the mission profile.
- 2927 (A) The AMP must have a backup emergency power source for communications  
2928 equipment, or a policy delineating methods for maintaining communications  
2929 during power outages and in disaster situations.

- 2930 (10) The AMP must retain paperwork/database information regarding transport  
2931 requests for a period of four years.
- 2932 (A) The AMP must have a method of audio recording or documenting call taking  
2933 and radio traffic.
- 2934 (11) The AMP will demonstrate written policies concerning communications.  
2935 (A) The Communications Specialist must document all aspects of the transport.  
2936 (B) The AMP shall have a written policy requiring that all transport requests are  
2937 screened for turn downs by other agencies.  
2938 (i) Information obtained from flight screening shall be communicated  
2939 internally and externally.  
2940 (C) The AMP shall have written policies outlining Visual Flight Rule (VFR) flight  
2941 following requirements, if applicable.  
2942 (D) The AMP must demonstrate policies that address post flight debriefings and  
2943 shift briefings with Communication Specialist.  
2944 (E) The AMP must maintain written records collecting data as required by  
2945 Federal, State and Local requirements.
- 2946 (12) The AMP will provide initial training and annual competencies for  
2947 Communication Specialists as appropriate to the mission profile..  
2948 (A) Initial and recurrent training:  
2949 (i) Navigation techniques and map reading skills.  
2950 (ii) Radio operations.  
2951 (iii) Telephonic equipment training.  
2952 (iv) Hazardous materials protocols and procedures.  
2953 (v) Weather interpretation training.  
2954 (vi) Stress recognition and management.  
2955 (vii) Customer service/public relations/phone etiquette.  
2956 (viii) Computer literacy and skills.  
2957 (ix) Current Post Accident/Incident Plan (PAIP).
- 2958 (13) The AMP shall demonstrate participation in weather turndown notification  
2959 systems and other reporting mechanisms appropriate to your region.
- 2960 (14) The AMP shall have written policies regarding Communication Specialists  
2961 operations during IFR flights.
- 2962 (15) The AMP should have a backup system in place for the computerized  
2963 systems utilized for flight following and mapping.
- 2964
- 2965 ~~(g) The AMP will have a center to receive and coordinate all requests for the medical~~  
2966 ~~transport service.~~
- 2967 ~~(1) The center will be staffed by Communication Specialists.~~

- 2968 ~~(A) Communication Specialists will be utilized to maintain contact with the~~  
2969 ~~medical personnel for response ready status and/or patient coordination and~~  
2970 ~~communication of patient status change.~~
- 2971 ~~(2) The Communication Center shall be equipped with communication capabilities~~  
2972 ~~appropriate to the mission profile.~~
- 2973 ~~(A) The AMP must have a backup emergency power source for communications~~  
2974 ~~equipment, or a policy delineating methods for maintaining communications~~  
2975 ~~during power outages and in disaster situations.~~
- 2976 ~~(3) The AMP must retain paperwork/database information regarding transport~~  
2977 ~~requests for a period of four years.~~
- 2978 ~~(A) The AMP must have a method of audio recording or documenting call taking~~  
2979 ~~and radio traffic.~~
- 2980 ~~(4) The AMP will demonstrate written policies concerning communications.~~
- 2981 ~~(A) The Communications Specialist must document all aspects of the transport.~~
- 2982 ~~(B) The AMP shall have a written policy requiring that all transport requests are~~  
2983 ~~screened for turn downs by other agencies.~~
- 2984 ~~(i) Information obtained from flight screening shall be communicated~~  
2985 ~~internally and externally.~~
- 2986 ~~(C) The AMP shall have written policies outlining Visual Flight Rule (VFR) flight~~  
2987 ~~following requirements, if applicable.~~
- 2988 ~~(D) The AMP must demonstrate policies that address post flight debriefings and~~  
2989 ~~shift briefings with Communication Specialist.~~
- 2990 ~~(E) The AMP must maintain written records collecting data as required by~~  
2991 ~~Federal, State and Local requirements.~~
- 2992 ~~(5) The AMP will provide initial training and annual competencies for~~  
2993 ~~Communication Specialists.~~
- 2994 ~~(A) Initial and recurrent training shall include:~~
- 2995 ~~(i) Navigation techniques and map reading skills.~~
- 2996 ~~(ii) Radio operations.~~
- 2997 ~~(iii) Telephonic equipment training.~~
- 2998 ~~(iv) Hazardous materials protocols and procedures.~~
- 2999 ~~(v) Weather interpretation training.~~
- 3000 ~~(vi) Stress recognition and management.~~
- 3001 ~~(vii) ——— Customer service/public relations/phone etiquette.~~
- 3002 ~~(viii) ——— Computer literacy and skills.~~
- 3003 ~~(ix) Current Post Accident/Incident Plan (PAIP).~~
- 3004 ~~(6) The AMP shall demonstrate participation in weather turndown notification~~  
3005 ~~systems and other reporting mechanisms appropriate to your region.~~

3006 ~~(7) The AMP shall have written policies regarding communication center operations~~  
3007 ~~during IFR flights.~~

3008 ~~(8) The AMP should have a backup system in place for the computerized systems~~  
3009 ~~utilized for flight following and mapping.~~

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3011  
3012  
3013 The communication center for Air Medical Service programs will provide  
3014 continuity of communications and serve as the link between the pilot, the medical crew  
3015 and the ground contact during the medical transport. This center will receive and  
3016 coordinate all requests for the medical transport service. The communication specialist is  
3017 an integral part of the Air Medical Service program team and there should be evidence of  
3018 participation within the group.

3019  
3020 ~~To ensure role clarification it should be understood that communication for Air~~  
3021 ~~Medical Service providers will be accomplished through “communication” centers, not to~~  
3022 ~~be synonymous with an accredited FAA dispatch or ATC center. Communication~~  
3023 ~~through these providers will be utilized to maintain contact with the medical personnel~~  
3024 ~~for response ready status and/or patient coordination and communication of patient status~~  
3025 ~~change.~~

3026  
3027 The FAA Part 135 certificate holder has the responsibility and authority to make  
3028 all flight release decisions, and must have procedures in place for locating each flight for  
3029 which an FAA flight plan is not filed. The pilot maintains command of the aircraft during  
3030 a mission, and should be able to control and override radio communications from the  
3031 cockpit in the event of an emergency. Aircraft should be equipped so that all flight  
3032 members are able to communicate with each other. The use of cell phones must follow  
3033 current FCC and FAA regulations.

## 3034 3035 ROLES AND RESPONSIBILITIES OF COMMUNICATORS

3036 The communication specialist must have direct or indirect communication with the  
3037 medical and aviation personnel at all times. Along with receiving and coordinating flight  
3038 requests for areomedical transport, he/she has the responsibility to ensure communication  
3039 regarding patient condition, status and ETA to receiving facilities, additional information  
3040 as requested, and must be an effective link amongst medical care providers. Equipment  
3041 should be functioning and in good repair in the center and in the aircraft, and should be  
3042 capable of transmitting and receiving the following: 1. Communications Center. 2.  
3043 Medical Direction. 3. EMS, First Response, and Law Enforcement Agencies.

3044  
3045 At minimum, one communication specialist must be present in the communication center  
3046 at all times for the duration of the mission. This specialist should be trained on the initial  
3047 coordination of a mission that includes the communication and documentation required to  
3048 complete that mission. This training should include the ability to screen for a flight turn  
3049 down by other programs in the area when applicable. Communication must be

3050 maintained incrementally with the medical crew member from initiation of flight until  
3051 arrival back at base in order to maintain flight crew status and availability.

3052

3053 A post flight debrief of each mission should include the communication specialist. Shift  
3054 briefings should be conducted to assure continuity between shifts. Participation is  
3055 required in safety, staff and quality improvement meetings by a representative of the  
3056 communication center.

3057

3058 Training and/or certification will be maintained, according to communication center SOP.  
3059 The communication specialist shall have basic knowledge EMS roles, terminology,  
3060 operations, along with state and local regulations. Initial training and annual  
3061 competencies shall include navigation techniques and map reading skills, radio  
3062 operations, hazardous materials protocols and procedures, stress recognition and  
3063 management, customer service/public relations/phone etiquette, computer literacy and  
3064 skills, and current Post Accident/Incident Plan (PAIP). The communication specialist  
3065 must have knowledge of FAR and industry related information or changes as they are  
3066 relevant to the Air Medical Service industry and operations. There must be proof of  
3067 yearly competency in flight following for each communication specialist. Provide proof  
3068 of yearly training on and abiding by FAA sterile cockpit rules and other FAA regulations  
3069 is required to ensure the safety of each mission. Training should also include weather  
3070 and METAR interpretation training. The communication specialist is not required to be a  
3071 weather interpretation expert but at least possess general knowledge and understanding of  
3072 postings so that information may be relayed to the pilot when needed.

3073

3074

3075 The PAIP, a readily accessible post accident/incident plan, must be part of the flight  
3076 following protocol so that appropriate search and rescue efforts may be initiated in the  
3077 event the aircraft is overdue, and radio communications cannot be established nor  
3078 location verified. Post accident/incident plans should be easily identified, readily  
3079 available, and understood by all program personnel and minimally include a list of  
3080 personnel with current phone numbers, in the event of a program incident/accident. This  
3081 list should minimally include sponsoring organization individuals where applicable, risk  
3082 management attorney, family members of team members, family of patient, referring  
3083 hospital, receiving hospital, security (as applicable), human resources (as applicable),  
3084 media relations or pre-identified individual who will be responsible for communicating  
3085 with the media, state health department and other team members.

3086

3087 ~~There must be an accessible PAIP (Post Accident/ Incident Plan) plan with proof of~~  
3088 ~~training and documented annual proficiency. Training and knowledge on types of~~  
3089 ~~aviation emergencies and proof of emergency preparedness drill should be documented to~~  
3090 ~~include fire drill, forces of nature, helicopter mishaps, etc.~~

3091

3092

## GENERAL STANDARDS

3093

3094 Education and Certifications such as EMT, EMD, NAACS Certified Flight  
3095 Communication course are highly encouraged, and if required by organization, must  
3096 remain current.

3097  
3098

3099 There should be evidence by the program and communication center of participation in  
3100 weather turndown notification systems appropriate to your region. Each region has its  
3101 own regional advisory council that should create or endorse an avenue of communication  
3102 whereby weather turn down notifications are communicated and received. It is  
3103 imperative that the program participates in the regional advisory council and that either a  
3104 representative of the communication center is involved or that information is  
3105 communicated in a timely manner to this group. There should be participation in  
3106 EMResource (EMSystems) for updated status of aircraft availability and mass casualty  
3107 use. NAACS certification by Communicators is preferred.

3108

## 3109 POLICY AND PROCEDURES

3110

3111 Established Policy and Procedure to reflect basic communication and operations between  
3112 the center and ground, air and LZ coordinators and/or facilities is imperative. These  
3113 should be reviewed and updated annually or as needed.

3114

3115 Information and details to be obtained and documented for each mission request might  
3116 include:

- 3117 1. Time of call. (Time request/inquiry received)
- 3118 2. Name and phone number of requesting agency or person.
- 3119 3. Age, diagnosis or mechanism of injury.
- 3120 4. Referring and receiving physician and facilities (for interfacility requests) as per  
3121 policy of the medical transport service.
- 3122 5. Verification of acceptance of patient and verification of bed availability by  
3123 referring physician and facility.
- 3124 6. Destination airport, refueling stops (if necessary) location of transportation  
3125 exchange and hours of operation.
- 3126 7. Weather checks prior to departure and during mission as needed.
- 3127 8. Previous turn-downs of the mission (i.e. helicopter shopping)
- 3128 9. Ground transportation coordination at sending and receiving areas.
- 3129 10. Time of Dispatch (Time medical personnel notified flight is a go, post pilot OK's  
3130 flight)
- 3131 11. Time Depart Base (Time of lift-off from base or other site.)
- 3132 12. Number and names of persons on board.
- 3133 13. Amount of fuel on board.
- 3134 14. Estimated time of arrival (ETA).
- 3135 15. Pertinent LZ information.
- 3136 16. Time Arrive Location (Time aircraft/ambulance arrives at landing zone or  
3137 helipad)

- 3138 17. Time Depart Location (Time aircraft/ambulance lifts off from landing zone or
- 3139 helipad)
- 3140 18. Time Arrive Destination (Time patient transferred to receiving clinical team – in
- 3141 unusual circumstances, this may not be at a healthcare facility.)
- 3142 19. Time Depart Destination (Time left patient destination. Will be recorded for
- 3143 transports not ending at base).
- 3144 20. Time Arrive Base (Time arrive base after call completed)
- 3145 21. Time Aborted (Time authorized transport aborted/cancelled after dispatch)

3146

3147 Concluding documentation may include calculation of:

- 3148 1. Response Time (Time interval between Time of Dispatch and Arrive Location)
- 3149 2. Ground Time (Time interval between Time Arrive Location and Time Depart
- 3150 Location)
- 3151 3. Transport Time (Time from Time Depart Location to Time Arrive Location)
- 3152 4. Total Mission Time (Time interval between Time of Dispatch and Time Arrive
- 3153 Base)

3154

3155 Additional Criteria for Fixed Wing Operations should be conducted using VFR flight  
3156 plans minimally, and IFR flight plans whenever feasible. Procedures ensure that pilots  
3157 use ATC radar and/or communications services whenever operating under VFR and  
3158 within the service area of an ATC facility or a communications service. In addition to  
3159 IFR flight plans, there are procedures to notify the communications center of the specific  
3160 aircraft departure time, estimated time of arrival and arrival at the scheduled destination.  
3161 For a fixed wing service that flies only pre-scheduled flights, an answering service may  
3162 serve as the receiving point for requests for service. Answering service personnel must be  
3163 trained to obtain specific information when receiving a request to schedule fixed wing  
3164 patient transportation. The items should include but not be limited to name and telephone  
3165 number of caller, patient type/condition, date and time call received, anticipated or  
3166 scheduled date/time of departure, location of patient and destination, and specific  
3167 methods must be used by the answering service for contacting the medical service  
3168 coordinator (or designee) to relay request information, i.e. pager numbers, telephone  
3169 and/or cellular numbers. Guidelines of timely notification (less than thirty [30] minutes)  
3170 should be established. Alternate procedures for notification must be in place in case the  
3171 coordinator is not available to receive the request/information. An on-call roster of the  
3172 medical team must be provided to the answering service. The roster includes a priority  
3173 phone list of personnel to notify in the event of an emergency.

3174

3175 There should be retention of paperwork/database information for a period of (XX) years.  
3176 Audio recordings of call taking and radio traffic must be retained for a minimum of 90  
3177 days.

3178

3179 There should be a process in place to ensure complete and ongoing quality improvement  
3180 including feedback and procedure for loop closure. A representative from the  
3181 communication center should be involved in this process.

3182

## SAFETY

~~In an effort to ensure a well rested, alert individual, the specialist must have 8 hours of uninterrupted rest time prior to scheduled shift. Personnel have the right to call a “time out” and be granted a reasonable amount of rest time without retribution when working extended periods of time or periods high call volume. Policies must be in place to demonstrate strategies to minimize fatigue related to duty time, length of shift, and number of shifts worked per week. Relief personnel must be available for periodic breaks. Seating and work stations that are ergonomically appropriate shall be provided for each communication specialist on duty.~~

~~A status display with information regarding pre-scheduled missions, maintenance information, on duty team members, weather information should be prominently displayed. Current local service maps and navigation charts, along with mapping software must be available.~~

Program must have an evacuation plan which provides for continuous communications with transport personnel in the event there is a need to evacuate the communications center. There should also be a backup emergency power source for communications equipment, or a policy delineating methods for maintaining communications during power outages and in disaster situations. The communication specialist should be involved in an annual safety in service which could be AMRM, CRM or equivalent content.

## FLIGHT FOLLOWING

The intention of flight following is to maintain awareness of the flight crew and patients status, in service and launch capabilities and safety of the crew. In no way does a communications center dispatch flights. The PIC remains the final decision maker on flight launches and flight activities not pertaining to direct medical care. The medical crew and communications center aid in decision making by providing valuable information and input into the call.

Call taking will consist of obtaining information that is pertinent to flight related activities and medical decision making efforts by the entire team and must consist of: A dedicated phone line for flight requests, and a system for recording all incoming and outgoing telephone and radio transmissions with time recording and playback capabilities

Point of contact and call back number for sending agency, suspected injury/illness, weight and height of patient and destination requested should be obtained at the time of the call.

3227

3228 All flights will be screened for turn downs by other agencies and information obtained  
3229 will be communicated to the pilot of the requesting flight prior to launch.

3230

3231 Inter facility requests will include, MOT information, destination of patient and ground  
3232 transportation coordination, if needed.

3233

3234 Flight following will consist of obtaining information that is pertinent to flight safety and  
3235 patient information.

3236 1. VFR flight following shall not impede the communication needs of the pilot with  
3237 appropriate ATC centers.

3238 2. VFR flights will update location on an established regular basis not to exceed 15-  
3239 minute intervals and locations will be documented during flight.

3240 3. IFR flights should have a system in place to notify the communications center of  
3241 appropriate launch and landing times as well as diversion from the original flight  
3242 plan which will require a change in patient transport needs.

3243 4. All IFR flight plans should be known by communications prior to launch.

3244 5. PAIP activation if crew has not checked in and is unable to be contacted 30  
3245 minutes after expected arrival time.

3246 There should be a backup system in place to the computerized systems utilized for flight  
3247 following. Hard copies of aviation maps must be readily available to communicators  
3248 with training on interpretation to provide assistance to flight crews when an alternate  
3249 system must be relied upon.

3250 ~~PATIENT SECURITY~~

3251

3252 ~~Family members or other passengers that accompany patients must be properly identified~~  
3253 ~~and listed by name (in compliance with HIPAA regulations) in the communications~~  
3254 ~~center or by the transport coordinator.~~

3255

## 3256 SECTION 7: BASE/FACILITY STANDARDS

3257

### 3258 157.12 Proposed Rule Language – Rotor Wing Operations

3259

3260 (h) The AMP must demonstrate an appropriate and safe work environment for all  
3261 personnel.

3262 (1) The facility must have adequate lighting, ventilation, work and rest space  
3263 commensurate to mission profile and scheduled duty hours.

3264 (2) The facility will have allocated location for storage of equipment required for  
3265 patient care and care of the aircraft.

3266 (A) The crew quarters must be in a quiet, secure, environmentally safe area away  
3267 from the public.

- 3268 (B) The crew quarters must accommodate:  
3269 (i) Flight planning.  
3270 (ii) Crew briefings.  
3271 (iii) Access to a weather reporting system.  
3272 (iv) Computer and internet access.  
3273 (v) Proper rest quarters with chairs, beds, tables and desks as appropriate for  
3274 the Air Medical assignment.
- 3275 (3) The AMP must demonstrate a designated medical oxygen storage location with  
3276 policies for safe handling and storage.  
3277 (A) The AMP must demonstrate training on available medical oxygen systems,  
3278 safe storage and handling.
- 3279 (4) The AMP must demonstrate a designated biohazard storage location with policies  
3280 for safe handling and disposal.
- 3281 (5) The AMP must demonstrate Material Safety Data Sheets (MSDS) is accessible at  
3282 every base and operational facility as appropriate.  
3283 (A) The AMP must demonstrate training on MSDS awareness and use.
- 3284 (6) The AMP must demonstrate a policy to address the control of foreign object  
3285 debris (FOD).

3286  
3287 157.13 Proposed Rule Language – Fixed Wing Operations  
3288

- 3289 (h) The AMP must demonstrate an appropriate and safe work environment for all  
3290 personnel.  
3291 (1) The facility must have adequate lighting, ventilation, work and rest space  
3292 commensurate to mission profile and scheduled duty hours.  
3293 (2) The facility will have allocated location for storage of equipment required for  
3294 patient care and care of the aircraft.  
3295 (A) The crew quarters must be in a quiet, secure, environmentally safe area away  
3296 from the public.
- 3297 (B) The crew quarters must accommodate:  
3298 (i) Flight planning.  
3299 (ii) Crew briefings.  
3300 (iii) Access to a weather reporting system.  
3301 (iv) Computer and internet access.  
3302 (v) Proper rest quarters with chairs, beds, tables and desks as appropriate for  
3303 the Air Medical assignment.
- 3304 (3) The AMP must demonstrate a designated medical oxygen storage location with  
3305 policies for safe handling and storage.  
3306 (A) The AMP must demonstrate training on available medical oxygen systems,  
3307 safe storage and handling.

- 3308 (4) The AMP must demonstrate a designated biohazard storage location with policies  
3309 for safe handling and disposal.  
3310 (5) The AMP must demonstrate Material Safety Data Sheets (MSDS) is accessible at  
3311 every base and operational facility as appropriate.  
3312 (A) The AMP must demonstrate training on MSDS awareness and use.  
3313 (6) The AMP must demonstrate a policy to address the control of foreign object  
3314 debris (FOD).  
3315

## 3316 THE PHYSICAL BASE OF OPERATIONS

3317 An Air Medical Provider should demonstrate an appropriate and safe work environment  
3318 for all personnel with adequate lighting, ventilation, work and rest space as well as an  
3319 allocated location for storage of equipment required for patient care and care of the  
3320 aircraft.  
3321

## 3322 ADEQUATE CREW QUARTERS

3323 Rule: Rest quarters must be located away from general public access and should allow for  
3324 uninterrupted rest after daily duties are met.  
3325

3326 Adequate crew quarters are essential to the well being and safety of the air medical  
3327 operation. Each member of the flight team will have different needs for adequate rest. A  
3328 flight crew consists of pilot(s) and medical crew members which have needs appropriate  
3329 for their job.  
3330

3331 Pilots: The crew quarters should be in a quiet, secure, environmentally safe area away  
3332 from the public sector, which accommodates flight planning, crew briefings, access to a  
3333 weather reporting system, computer access, and all those essential items that provide the  
3334 pilots with the tools needed to plan a flight. To include those essential items needed to  
3335 accommodate proper rest, chairs, beds, tables and desks as appropriate for the Air  
3336 Medical assignment.  
3337

3338 The FAA Regulation /Part 135 .271 states: that for a Helicopter Emergency Medical  
3339 Service (HEMS) must provide “an adequate place of rest at, or in close proximity, to the  
3340 hospital that the HEMS assignment is being performed.”  
3341

3342 Medical Flight Crew: The crew quarters should be in a quiet, secure, environmentally  
3343 safe area away from the public sector, in close proximity to the helipad and pilot. The  
3344 area should include proper desks, chairs, tables, beds, computer access and those essential  
3345 items needed to provide proper rest to perform the air medical task.  
3346

3347 | Call in program facilities: [EXPLAIN!!](#)  
3348  
3349

3350

### OXYGEN AND BIOHAZARD STORAGE

3351

Oxygen storage and handling are matters of great concern for an AMP. Oxygen is not only a prescription controlled medication, but is a compressed gas. Compressed gases exist all around us, in one form or another. Thus familiarity can breed complacency in our storage, handling and use of such materials and their containers. Excellent guidance on storage of nonflammable compressed gasses may be found in the [National Fire Protection Association's standards](#). In particular "Storage for nonflammable gases less than 3000 cubic feet" maybe found in the [NFPA Standard 99](#).

3358

3359

Such storage and handling requirements should include concern over the location, access to, ventilation of the area, electrical systems in the area, and proximity to other potentially flammable materials. AMPs should consider a training module that includes many aspects of industrial safety. In particular attention to proper handling of compressed gasses will enable a safe workplace environment encompassing one of the catastrophic "hidden" dangers of everyday use.

3365

3366

AMP should have a designated biohazard storage location with policies for safe handling and disposal.

3367

3368

3369

### MSDS

3370

MSDS should be accessible at every base and operational facility as appropriate. These forms "contain vital information needed by a variety of people involved in working with hazardous materials. MSDS came about as part of a federal regulation, the "Right-to-Know Law," which guarantees workers have access to the right to information about how to safely handle workplace materials. By U.S. law, MSDS must accompany every hazardous material sent to a workplace." (ABRN web)

3375

3377

### FOD

3378

An AMP should have a policy to address control of foreign object debris (FOD) on the flight line. "Most of us are familiar with the term Foreign Object Debris/Damage or FOD. Foreign objects and debris (i.e., rocks, nails, screws, fasteners, tools, rivets, and wire) can find their way into the strangest places and do considerable damage. Those of us who work on or near the flight line are thoroughly aware of FOD and its associated hazards, but a reminder every now and then never hurts."

3384

3385

"Damage to aircraft caused by FOD ingestion can be very expensive. We must do all we can to prevent and control FOD. Bits of rock, sand, grass, metal, and even ice and snow ingested into a jet engine can cause significant damage to the compressor blades and other internal parts. This translates into a lot of money to repair or replace a FOD-damaged engine."

3386

3387

3388

3389

3390

"Preventing this damage starts with awareness of its presence on the [landing zones (LZ), hospital helipads or LZ's, parking ramps, taxiways, runways, and even the roads that lead into and out of these areas. Good housekeeping on the parking ramp will go a long

3393

3394 way in preventing hardware, stones, rocks, medical equipment, rubbish, and clothing  
3395 from finding its way into a jet engine. This is the responsibility of every aircrew member,  
3396 mechanic, technician, and driver who works on the flight line.” (FOD news web)

3397 ~~MAINTENANCE FACILITIES FOR FW AND RW AIRCRAFT~~

3398

3399 ~~Aviation maintenance is a strictly regulated aspect of the operation of an AMP.~~  
3400 ~~Maintenance is administered by the FAA which develops regulations, standards, policies~~  
3401 ~~and procedures, letters, notices, orders, and Advisory Circulars (AC) through its Flight~~  
3402 ~~Standards Services Air Carrier Maintenance Branch. An AMP should develop or require~~  
3403 ~~that its maintenance standards include such matters as compliance with all Advisory~~  
3404 ~~Orders (AO), Advisory Circulars and Advisory Directives (AD) to ensure that its aircraft~~  
3405 ~~are maintained to the most current and highest standards. Maintenance standards are also~~  
3406 ~~critical in the use of and accessibility of the proper parts and equipment, the FARs will~~  
3407 ~~instruct and require that certain tools and parts be maintained, calibrated and stored in~~  
3408 ~~particular manners prescribe to ensure safety.~~

3409 ~~A maintenance work environment is much more than an aircraft “garage.” Support of and~~  
3410 ~~requiring that maintenance work areas be well lit, clean and accessible, have adequate~~  
3411 ~~ventilation, adequate storage for tools and parts, comply with OSHA and NFPA standards~~  
3412 ~~and are heated and protected from weather will establish the AMP’s concern for high~~  
3413 ~~standards of maintenance to enhance safety. Of particular concern is supporting the~~  
3414 ~~human endeavor of the maintenance enterprise. AMPs should consult the FAA’s~~  
3415 ~~Maintenance Human Factors website for a large volume of information to assist in~~  
3416 ~~designing systems, policies and processes to support the maintenance effort and the~~  
3417 ~~maintenance technician.~~

3418

3419 ~~Communications between all members of an AMP is vital for its safe and effective~~  
3420 ~~operation. Mechanics are often over looked in this communications procedural~~  
3421 ~~development. Mechanism need to be established for communications between mechanic~~  
3422 ~~and operational crews for status and availability of aircraft. Communications procedures~~  
3423 ~~during aircraft maintenance should also be established as per FAA Advisory and be~~  
3424 ~~included in AMRM training within a program.~~

3425

3426 SECTION 8: SAFETY STANDARDS

3427

3428 157.12 Proposed Rule Language – Rotor Wing Operations

3429

3430 (i) An Air Medical Provider must demonstrate Safety initiatives in the workplace.

- 3431 (1) The AMP must provide evidence of a Safety Management System with the  
3432 following elements:  
3433 (A) SMS Management Plan  
3434 (i) The organization clearly states the policies, objectives and requirements of  
3435 the SMS.  
3436 (ii) The plan defines each element of the SMS.  
3437 (iii) The plan clearly identifies the responsibilities and authority of key  
3438 individuals for managing the SMS.  
3439 (B) Safety Promotion  
3440 (i) The organization clearly demonstrates that safety is a core value through  
3441 procedures, practices, training and allocation of resources.  
3442 (C) Document and Data Information Management  
3443 (i) The organization clearly documents and publicizes the organization's  
3444 safety policies, objectives and SMS procedures.  
3445 (ii) Demonstrates that the organization provides change control for all  
3446 applicable documents and has a process to communicate changes in  
3447 documents to all personnel.  
3448 (iii) The organization establishes annual review of all SMS documents.  
3449 (D) Hazard Identification and Risk Management  
3450 (i) The organization demonstrates a process to identify hazards and to  
3451 manage risks.  
3452 (ii) The organization demonstrates a process to prioritize risk management.  
3453 (iii) The organization demonstrates a method to track identified hazards.  
3454 (E) Occurrence and Hazard Reporting  
3455 (i) The organization demonstrates procedures for internal reporting of  
3456 hazards.  
3457 (ii) The organization demonstrates a hazard reporting form available to all  
3458 employees.  
3459 (iii) The organization demonstrates timely collection of occurrence and hazard  
3460 information.  
3461 (F) Occurrence Investigation and Analysis  
3462 (i) Every hazard, incident or accident must be investigated by the  
3463 organization.  
3464 (ii) All investigations shall be documented with an analysis by the  
3465 organization.  
3466 (G) Safety Assurance Oversight Programs  
3467 (i) The organization demonstrates oversight programs that evaluate the  
3468 effectiveness of the SMS.

- 3469 (ii) The organization’s oversight programs must include internal and external  
3470 assessments.
- 3471 (iii)The organization’s oversight programs must proactively seek out potential  
3472 hazards based on available data as well as evaluating the organization’s  
3473 safety program.
- 3474 (iv)The organization must demonstrate that all oversight programs are  
3475 integrated.
- 3476 (H) Safety Management Training Requirements
- 3477 (i) Organization must document that all personnel are given introductory and  
3478 recurrent SMS training.
- 3479 (ii) Training requirements for the organization must include:
- 3480 (aa) A safety orientation for all new personnel, stressing the  
3481 organization’s commitment to safety and everyone’s role in the SMS.
- 3482 (bb) Document SMS competency requirements for personnel.
- 3483 (cc) Track training requirements
- 3484 (dd) Provide access to conferences, workshops, literature and trade  
3485 journals.
- 3486 (I) Management of Change
- 3487 (i) The organization must have a process to ensure that all personnel are made  
3488 aware of and understand any changes in requirements, procedures and  
3489 applicable maintenance and operator manuals.
- 3490 (J) Emergency Preparedness and Response
- 3491 (i) Organization must have a written Emergency Response Plan (ERP).
- 3492 (aa) Plan must outline what should be done when an emergency occurs.
- 3493 (bb) Plan must outline what to do after an accident happens.
- 3494 (cc) Plan must define roles that are responsible for each action.
- 3495 (ii) The organization’s ERP must be readily available to staff on duty.
- 3496 (iii)Organization must demonstrate that the plan is updated when information  
3497 changes.
- 3498 (iv)Organization must document at least annual training, review and  
3499 practiced.
- 3500 (K) Performance Measurement and Continuous Improvement
- 3501 (i) Organization must identify key safety goals.
- 3502 (ii) Organization must demonstrate proactive and reactive monitoring of key  
3503 safety goals.

- 3504 (iii) Demonstrates performance measurements that are tailored to the size,  
3505 nature and complexity of the organization.
- 3506 (2) The AMP must demonstrate the implementation of Personal Protective  
3507 Equipment (PPE) appropriate to the environment and provider mission profile.
- 3508 (A) The AMP must demonstrate appropriate outerwear for Rotor-Wing Operations
- 3509 (i) Boots or sturdy ankle supporting footwear
- 3510 (ii) Flame retardant clothing
- 3511 (iii) Clothing must have reflective material or reflective striping on uniforms  
3512 for nighttime operations
- 3513 (iv) Flight helmets with visor(s) and appropriate communications capabilities.
- 3514 (v) Appropriate outerwear pertinent to survival in the environment
- 3515 (vi) Personnel must wear only natural fibers (i.e. cotton) under flight uniforms.
- 3516 (vii) Other clothing or personal protective equipment as required for  
3517 mission profile (i.e. rescue, extrication, law enforcement assist)
- 3518 (viii) AMP must document a program of ongoing maintenance and  
3519 replacement as required by manufacturer's recommendation for all PPE.
- 3520 (3) The AMP must demonstrate an Exposure Control Plan consistent with Federal  
3521 OSHA Guidelines.
- 3522 (4) The AMP must demonstrate policies regarding:
- 3523 (A) Dress codes.
- 3524 (B) PPE use including the use of eye protection.
- 3525 (C) Crew rest for medical staff that addresses maximum duty time and assurance  
3526 for adequate crew rest.
- 3527 (D) Safety complaint and feedback system.
- 3528 (E) Fitness for duty status:
- 3529 (i) Duty status during illness (i.e. sinusitis, otitis media, etc.).
- 3530 (ii) Medical conditions, including pregnancy, which may cause an employee  
3531 to be unable to perform job function that requires clearance to return duty  
3532 by personal physician.
- 3533 (iii) Duty status while taking medications which may cause drowsiness.

3534  
3535 157.13 Proposed Rule Language – Fixed Wing Operations  
3536

- 3537 (i) An Air Medical Provider must demonstrate Safety initiatives in the workplace.
- 3538 (1) The AMP must provide evidence of a Safety Management System with the  
3539 following elements:
- 3540 (A) SMS Management Plan
- 3541 (i) The organization clearly states the policies, objectives and requirements of  
3542 the SMS.

- 3543 (ii) The plan defines each element of the SMS.  
3544 (iii)The plan clearly identifies the responsibilities and authority of key  
3545 individuals for managing the SMS.
- 3546 (B) Safety Promotion  
3547 (i) The organization clearly demonstrates that safety is a core value through  
3548 procedures, practices, training and allocation of resources.
- 3549 (C) Document and Data Information Management  
3550 (i) The organization clearly documents and publicizes the organization’s  
3551 safety policies, objectives and SMS procedures.  
3552 (ii) Demonstrates that the organization provides change control for all  
3553 applicable documents and has a process to communicate changes in  
3554 documents to all personnel.  
3555 (iii) The organization establishes annual review of all SMS documents.
- 3556 (D) Hazard Identification and Risk Management  
3557 (i) The organization demonstrates a process to identify hazards and to  
3558 manage risks.  
3559 (ii) The organization demonstrates a process to prioritize risk management.  
3560 (iii)The organization demonstrates a method to track identified hazards.
- 3561 (E) Occurrence and Hazard Reporting  
3562 (i) The organization demonstrates procedures for internal reporting of  
3563 hazards.  
3564 (ii) The organization demonstrates a hazard reporting form available to all  
3565 employees.  
3566 (iii)The organization demonstrates timely collection of occurrence and hazard  
3567 information.
- 3568 (F) Occurrence Investigation and Analysis  
3569 (i) Every hazard, incident or accident must be investigated by the  
3570 organization.  
3571 (ii) All investigations shall be documented with an analysis by the  
3572 organization.
- 3573 (G) Safety Assurance Oversight Programs  
3574 (i) The organization demonstrates oversight programs that evaluate the  
3575 effectiveness of the SMS.  
3576 (ii) The organization’s oversight programs must include internal and external  
3577 assessments.  
3578 (iii)The organization’s oversight programs must proactively seek out potential  
3579 hazards based on available data as well as evaluating the organization’s  
3580 safety program.

- 3581 (iv)The organization must demonstrate that all oversight programs are  
3582 integrated.
- 3583 (H) Safety Management Training Requirements
- 3584 (i) Organization must document that all personnel are given introductory and  
3585 recurrent SMS training.
- 3586 (ii) Training requirements for the organization must include:
- 3587 (aa) A safety orientation for all new personnel, stressing the  
3588 organization’s commitment to safety and everyone’s role in the SMS.
- 3589 (bb) Document SMS competency requirements for personnel.
- 3590 (cc) Track training requirements
- 3591 (dd) Provide access to conferences, workshops, literature and trade  
3592 journals.
- 3593 (I) Management of Change
- 3594 (i) The organization must have a process to ensure that all personnel are made  
3595 aware of and understand any changes in requirements, procedures and  
3596 applicable maintenance and operator manuals.
- 3597 (J) Emergency Preparedness and Response
- 3598 (i) Organization must have a written Emergency Response Plan (ERP).
- 3599 (aa) Plan must outline what should be done when an emergency occurs.
- 3600 (bb) Plan must outline what to do after an accident happens.
- 3601 (cc) Plan must define roles that are responsible for each action.
- 3602 (ii) The organization’s Emergency Response Plan must be readily available to  
3603 staff on duty.
- 3604 (iii)Organization must demonstrate that the plan is updated when information  
3605 changes.
- 3606 (iv)Organization must document at least annual training, review and  
3607 practiced.
- 3608 (K) Performance Measurement and Continuous Improvement
- 3609 (i) Organization must identify key safety goals.
- 3610 (ii) Organization must demonstrate proactive and reactive monitoring of key  
3611 safety goals.
- 3612 (iii)Demonstrates performance measurements that are tailored to the size,  
3613 nature and complexity of the organization.
- 3614 (2) The AMP must demonstrate the implementation of Personal Protective  
3615 Equipment (PPE) appropriate to the environment and provider mission profile.
- 3616 (A) The AMP must demonstrate appropriate outerwear for Fixed-Wing Operations

- 3617 (i) Boots or sturdy ankle supporting footwear
- 3618 (ii) Flame retardant clothing
- 3619 (iii) Clothing must have reflective material or reflective striping on uniforms
- 3620 for nighttime operations
- 3621 (iv) Appropriate outerwear pertinent to survival in the environment
- 3622 (v) Personnel must wear only natural fibers (i.e. cotton) under flight uniforms.
- 3623 (vi) Other clothing or personal protective equipment as required for mission
- 3624 profile (i.e. rescue, extrication, law enforcement assist)
- 3625 (vii) AMP must document a program of ongoing maintenance and
- 3626 replacement as required by manufacturer's recommendation for all PPE.
- 3627 (3) The AMP must demonstrate an Exposure Control Plan consistent with Federal
- 3628 OSHA Guidelines.
- 3629 (4) The AMP must demonstrate policies regarding:
- 3630 (A) Dress codes.
- 3631 (B) PPE use including the use of eye protection.
- 3632 (C) Crew rest for medical staff that addresses maximum duty time and assurance
- 3633 for adequate crew rest.
- 3634 (D) Safety complaint and feedback system.
- 3635 (E) Fitness for duty status:
- 3636 (i) Duty status during illness (i.e. sinusitis, otitis media, etc.).
- 3637 (ii) Medical conditions, including pregnancy, which may cause an employee
- 3638 to be unable to perform job function that requires clearance to return duty
- 3639 by personal physician.
- 3640 (iii) Duty status while taking medications which may cause drowsiness.
- 3641

#### 3642 SAFETY MANAGEMENT SYSTEMS:

3643 The single greatest impediment to error prevention in the medical industry is “that we  
3644 punish people for making mistakes.” Dr. Lucian Leape, Professor, Harvard School of  
3645 Public Health, Testimony before Congress on Health Care Quality Improvement.

#### 3646 DEFINITION OF SAFETY MANAGEMENT SYSTEMS (SMS)

3647 “SMS enhances an airlines [organizations] ability to operate safely; it breaks down  
3648 barriers between the employer and employee, and leads to shared values on acceptable  
3649 levels of risk.” (Canada, 2009)

3650 SMS can be defined as a coordinated, comprehensive set of processes designed to direct  
3651 and control resources to optimally manage safety. SMS takes unrelated processes and  
3652 builds them into one coherent structure to achieve a higher level of safety performance,  
3653 making safety management an integral part of overall risk management. SMS is based on

3654 leadership and accountability. It requires proactive hazard identification, risk  
3655 management, information control, auditing and training. It also includes incident and  
3656 accident investigation and analysis (IHST, 2007).

3657 **AT A MINIMUM A SAFETY MANAGEMENT SYSTEM SHOULD INCLUDE**  
3658 **(IHST, 2007):**

---

3659 1) SMS Management Plan: A SMS Management Plan should clearly define safety  
3660 objectives, how the organization intends to execute and measure the effectiveness of the  
3661 SMS, and how the SMS will support the organization’s business plan and/or objectives.

3662 The plan should include: An expression of management’s commitment to safety  
3663 that clearly state the policies, objectives and requirements of the SMS; define the  
3664 structure of the SMS as well as the responsibilities and authority of key individuals for  
3665 managing the SMS; define each element of the SMS; convey the expectations and  
3666 objectives of the SMS to all employees; and explain how to identify and maintain  
3667 compliance with current safety regulatory requirements.

3668 2) Safety Promotion: The organization must demonstrate that safety is a core  
3669 value. Procedures, practices, training and the allocation of resources must clearly  
3670 demonstrate management’s commitment to safety. The organization should be able to  
3671 demonstrate top down and bottom up dedication to a “just culture” in the organization. A  
3672 “just culture” demonstrates balancing safety and accountability as well as treating people  
3673 fairly.

3674 3) Document and Data Information Management: Organizations should  
3675 demonstrate procedures to identify and manage the information necessary to ensure  
3676 compliance with SMS policies, procedures and goals. This procedures should: Document  
3677 and publicize the organization’s safety policies, objectives and SMS procedures; identify  
3678 the safety regulations that govern the organization; provide all employees access to  
3679 pertinent regulatory information; consolidate documentation describing the systems for  
3680 each SMS component; provide change control for all applicable documents; have a  
3681 process to communicate changes in documents to all personnel; promptly remove  
3682 obsolete documents; establish periodic review of documents.

3683 4) Hazard Identification and Risk Management: The SMS needs to include a  
3684 process to identify hazards and develop processes to identify and manage risks. Key  
3685 elements of hazard identification and risk management programs are: Proactive  
3686 identification of existing and potential hazards; a process to prioritize risk management; a  
3687 method to track identified hazards.

3688           5) Occurrence and Hazard Reporting: Occurrences are unplanned safety related  
3689 events, including accidents and incidents that could impact the safety of guests,  
3690 passengers and personnel, equipment or the work environment. The identification of a  
3691 hazard provides an opportunity to learn how to prevent accidents and incidents it might  
3692 cause. Procedures need to be in place for internal reporting of hazards. Timely collection  
3693 of information allows the organization to react to the information. A hazard reporting  
3694 form should be simple, convenient and available to all employees.

3695           6) Occurrence Investigation and Analysis: Every hazard, incident or accident  
3696 needs to be investigated for the purpose of gathering information that may help prevent  
3697 similar occurrences. An initial risk assessment will assist in determining the extent of the  
3698 full investigation. Reports that demonstrate a high potential hazard should be investigated  
3699 in greater depth than those with low potential. An investigation should not be limited by  
3700 “who is to blame”, it should encompass the “what and why” of the incident as well as the  
3701 causal, contributing and organizational factors that may have exacerbated the incident.

3702           7) Safety Assurance Oversight Programs: Good oversight programs evaluate the  
3703 effectiveness of the organization’s SMS. They help management improve safety services.  
3704 Evaluation of the safety program should include internal and external assessments. Safety  
3705 oversight is provided in part by some of the attributes of the SMS such as, occurrence  
3706 reporting and investigation. However, safety assurance and oversight programs need to  
3707 proactively seek out potential hazards based on available data as well as evaluating the  
3708 organization’s safety program.

3709           8) Safety Management Training Requirements: All personnel should be given  
3710 introductory and recurrent SMS training. When establishing training requirements for the  
3711 organization, you should: Include a safety orientation for all new personnel, stressing the  
3712 organization’s commitment to safety and everyone’s role in the SMS; document  
3713 competency requirements for personnel; have a system to track training requirements;  
3714 make effective use of conferences, workshops, literature and trade journals.

3715           9) Management of Change: Unless properly managed, changes in organizational  
3716 structure, personnel, documentation, processes or procedures can result in the inadvertent  
3717 introduction of hazards and increased risk. Have a process to ensure that all personnel  
3718 are made aware of and understand any changes in requirements, procedures and  
3719 applicable maintenance and operator manuals.

3720           10) Emergency Preparedness and Response: An Emergency Response Plan  
3721 outlines in writing what should be done when an emergency occurs, what to do after an  
3722 accident happens, and who is responsible for each action. The better prepared an

3723 organization is for an emergency, the better the chances that injuries to personnel and  
3724 damage to equipment, property or the environment can be minimized. The plan should:  
3725 Be readily available, be relevant and useful to people on duty, be exercised periodically;  
3726 be updated when information changes; be briefed to all personnel along with their  
3727 responsibilities, and should be practiced.

3728 11) Performance Measurement and Continuous Improvement: The safety  
3729 performance of the organization needs to be proactively and reactively monitored to  
3730 ensure that the key safety goals continue to be achieved. *Relying on accident rates as a*  
3731 *safety performance measure can create a false impression because not having accidents*  
3732 *does not necessarily indicate the organization is safe.* In reality, there will always be  
3733 latent conditions within the system that might lead to an accident. Performance  
3734 measurements must be tailored to the size, nature and complexity of the organization.

3735 ~~As documented in (reference documents AC 120-92 and IHST).~~

3736 ~~Safety Management Systems may be defined as a businesslike approach to safety. It is a~~  
3737 ~~systematic, explicit and comprehensive process for managing safety risks. As with all~~  
3738 ~~management systems, a safety management system provides for goal setting, planning,~~  
3739 ~~and measuring performance. A safety management system is woven into the fabric of an~~  
3740 ~~organization. It becomes part of the culture, the way people do their jobs (Canadian~~  
3741 ~~Aviation)~~

3742

### 3743 ~~AIR MEDICAL RESOURCE MANAGEMENT~~

3744 ~~According to the Federal Aviation Administration (FAA), "Helicopter Emergency~~  
3745 ~~Medical Service (HEMS) is a very demanding and time critical / mission orientated~~  
3746 ~~operation. One consistent priority that needs to be addressed by each individual air~~  
3747 ~~ambulance organization is the safety of the flightcrew, medical crew, patient passengers,~~  
3748 ~~and support personnel. No operator goes out anticipating the occurrence of an accident,~~  
3749 ~~and like most aviation accidents, there is rarely a single event that is the cause of an~~  
3750 ~~accident. It is usually a multitude of contributing factors that lead to potentially~~  
3751 ~~catastrophic results. Preventing accidents is the responsibility of everyone involved and~~  
3752 ~~takes the dedicated involvement of all of the aviation and medical professionals involved~~  
3753 ~~in the operation to provide the public the safest possible air ambulance service."~~

3754 ~~The State of Virginia Medevac Committee has set out a best practices document that~~  
3755 ~~clearly outlines the state of the AMP's Community in utilizing and operationalizing~~

3756 | ~~AMRM in its “Virginia Office of Emergency Medical Services, Medevac Best Practice~~  
3757 | ~~2.2.1, Air Medical Resource Management.”~~

3758

## CREW REST AND STAFFING:

3759

3760 | Refer to Operational Standards Staffing.

## PERSONAL PROTECTIVE EQUIPMENT

3761

3762

3763 | ~~While the likelihood of being involved in a survivable, post-crash fire is low; the~~  
3764 | ~~consequence of not being properly attired is extremely high.~~

3765

3766 | ~~Currently, there are no Federal flammability standards or regulations that exist pertaining~~  
3767 | ~~to uniforms for Air Medical Service personnel, airline pilots or flight attendant personnel~~  
3768 | ~~beyond the standards applied to consumer clothing. In Advisory Circular A-96-88, the~~  
3769 | ~~FAA stated: “Safety experts agree that in order to decrease the chance of sustaining~~  
3770 | ~~burns, it is better to wear long sleeves and pants, than it is to wear short sleeves and short~~  
3771 | ~~pants. In addition, ‘natural’ fibers such as wool and cotton are better than synthetic~~  
3772 | ~~fabrics. Also it is better to have low-heel shoes which are enclosed, and straps or laces~~  
3773 | ~~are encouraged while sandals are discouraged.”~~

3774

3775 | ~~Flammability assessments performed by Thiokol Chemical Corporation (July 1967) and~~  
3776 | ~~separate testing performed by the Department of the Navy (December 1987)~~  
3777 | ~~demonstrated that Nomex® was superior to cotton in its flame retardant ability but both~~  
3778 | ~~were susceptible to heat transfer. Both reported reduction in heat transfer when multiple~~  
3779 | ~~layers of natural fibers were worn.~~

3780

3781 | ~~Rotor-wing incidents and crashes place occupants at increased risk for head trauma due~~  
3782 | ~~to blunt force impact with cabin / cockpit interiors and potential head strikes associated~~  
3783 | ~~with improperly secured equipment within the aircraft. To reduce the likelihood of~~  
3784 | ~~significant head trauma, helmet use is strongly encouraged. Helmets with visors~~  
3785 | ~~deployed offer added protection to cockpit occupants in the event of windscreen~~  
3786 | ~~penetration associated with bird strikes during forward flight.~~

3787

### ~~Head-strike envelope~~

3789

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3797

1. ~~The interior modification of the aircraft is clear of objects/projections OR the interior of the aircraft is padded to protect the head-strike envelope of the medical personnel and patients as appropriate to the aircraft.~~
2. ~~The head-strike envelope in the ambulance should be clear of hard objects that could cause injury in the event of poor road conditions or sudden stops.~~
3. ~~Helmets are required for rotor-wing operations. Helmets for crewmembers must be appropriately fitted and maintained according to the program’s manufacturer’s criteria or program’s policy.~~

~~All aircraft equipment (including specialized equipment) and supplies must be secured according to FAR's. (Use of bungee cords is not considered appropriate when securing equipment and supplies). Ambulance equipment must be secured by an appropriate clamp, strap, or other mechanism to the vehicle or stretcher/isolette to prevent movement during a crash or abrupt stop.~~

The program leadership is responsible for ensuring safety principles and practices are established and followed by those working for the program. Appropriate equipment for Air Medical Service providers is essential to their safety and those they care for. The program should address the following elements.

1. Rotor-Wing Operations
  - a. Boots or sturdy ankle supporting footwear
  - b. Flame retardant clothing
  - c. Clothing must have reflective material or reflective striping on uniforms for nighttime operations
  - d. Flight helmets with visor(s)
  - e. Appropriate outerwear pertinent to survival in the environment
  - f. Undergarments: Encourage personnel to wear only natural fibers (i.e. cotton) under flight uniforms.
2. Fixed-Wing Operations
  - a. Boots or sturdy ankle supporting footwear;
  - b. Flame retardant clothing;
  - c. Appropriate outerwear pertinent to survival in the environment;
  - d. Undergarments: Encourage personnel to wear only natural fibers (i.e. cotton) under flight uniforms.
  - e. Hearing protection if required by aircraft makes and type.

Additionally, programs must have written policies & procedures for Rotor-Wing and Fixed-Wing operations addressing the following items pertaining to Air Medical Service Personnel and Patient Safety:

## INFECTION CONTROL

There is an Exposure Control Plan consistent with Federal OSHA Guidelines.

Additional medical and agency resources pertinent to infection control must be identified and made available in the policy manual to all medical transport personnel.

Education programs will include the institution's/service's infection control resources, programs, policies and CDC recommendations. Policies and procedures will be reviewed on an annual basis.

- 3841 1. The dress codes should address jewelry, hair and other items of personnel that  
3842 may interfere with patient care or crewmember safety (i.e. wearing of N-95  
3843 particulate mask, etc.);  
3844 2. Duty status during illness (i.e. sinusitis, otitis media, etc.)  
3845 3. Duty status while taking medications which may cause drowsiness.  
3846 4. Crew rest for medical staff that address maximum duty time and assurance for  
3847 adequate crew rest.  
3848 5. Eye protection.  
3849 6. Safety complaint and feedback system.  
3850

3851 ~~SAFETY INITIATIVES~~

3852 ~~Medical transport services are required to report aviation and ground ambulance~~  
3853 ~~accidents and strongly encouraged to report incidents to the CONCERN network,~~  
3854 ~~NOTAMS, Weatherturndown.com and other locally accepted reporting systems and must~~  
3855 ~~report to the appropriate government agencies. There is a written policy that addresses~~  
3856 ~~reporting incidents or accidents and assigns certain individual(s) with the responsibility to~~  
3857 ~~report.~~  
3858

3859 ~~HOT REFUELING POLICIES FOR NORMAL AND~~  
3860 ~~EMERGENCY SITUATIONS:~~

3861 ~~For aircraft/ambulance, refueling with the engine running, rotors turning, and/or~~  
3862 ~~passengers onboard are not recommended. However, emergency situations of this type~~  
3863 ~~can arise. Specific and rigid procedures should be developed by the operator to handle~~  
3864 ~~these occurrences. Such "rapid refueling" procedures will be covered by the operator's~~  
3865 ~~training program. Refueling policies should address:~~

- 3866 • ~~Refueling with engine(s) running or shut down.~~
- 3867 • ~~Refueling with medical transport personnel or patient(s) on board, which~~  
3868 ~~includes a requirement that at least one medical transport person remain~~  
3869 ~~with the patient at all times during refueling or stopover.~~
- 3870 • ~~Fire hazard policies pertinent to refueling procedures are addressed in the~~  
3871 ~~certificate holder's Operations Specifications Manual.~~

3872  
3873 ~~See ICAO SMM Draft in Appendix (XX)~~

3874 ~~See Risk Management A/C~~

3875 ~~See Canadian Air SMS Fatigue~~

3876 ~~See Safety Management Systems A/C 120-92~~  
3877

3878 SECTION 9: QUALITY IMPROVEMENT

3879

3880 157.12 Proposed Rule Language – Rotor Wing Operations

3881

3882 (j) The AMP must have a Quality Improvement (QI) Program which demonstrates an  
3883 ongoing system that includes retrospective review, concurrent review, and  
3884 prospective forecasting of clinical care.

3885 (1) The AMP QI Program must be overseen by the Medical Director.

3886 (2) The AMP QI Program must demonstrate that it is designed to be a source of  
3887 Clinical Practice improvement.

3888 (3) The AMP QI Program must demonstrate that it is designed to be non punitive.

3889 (A) The QI program must include a remediation process.

3890 (B) The AMP QI Program must demonstrate inclusion of disciplinary action as a  
3891 last resort or in extreme instances of violations of protocol or policy.

3892 (4) The AMP should be able to demonstrate an appropriate method of chart review  
3893 given their resources and abilities.

3894 (5) The AMP must demonstrate the methods used to define the review process,  
3895 including the sampling methodology, filters, and triggers.

3896 (6) The AMP must demonstrate ongoing performance improvement through direct  
3897 observation and retrospective review

3898 (A) Retrospective audits should be accomplished through chart audits or patient  
3899 care records reviews.

3900 (B) Direct observation of performance.

3901 (7) The AMP shall demonstrate a customer service process which addresses  
3902 complaints, concerns, comments, and service inquiries.

3903 (A) The AMP shall document investigation.

3904 (B) The AMP must document written closure.

3905

3906 157.13 Proposed Rule Language – Fixed Wing Operations

3907

3908 (j) The AMP must have a Quality Improvement (QI) Program which demonstrates an  
3909 ongoing system that includes retrospective review, concurrent review, and  
3910 prospective forecasting of clinical care.

3911 (1) The AMP QI Program must be overseen by the Medical Director.

3912 (2) The AMP QI Program must demonstrate that it is designed to be a source of  
3913 Clinical Practice improvement.

3914 (3) The AMP QI Program must demonstrate that it is designed to be non punitive.

3915 (A) The QI program must include a remediation process.

3916 (B) The AMP QI Program must demonstrate inclusion of disciplinary action as a  
3917 last resort or in extreme instances of violations of protocol or policy.

- 3918 (4) The AMP should be able to demonstrate an appropriate method of chart review  
3919 given their resources and abilities.
- 3920 (5) The AMP must demonstrate the methods used to define the review process,  
3921 including the sampling methodology, filters, and triggers.
- 3922 (6) The AMP must demonstrate ongoing performance improvement through direct  
3923 observation and retrospective review
- 3924 (A) Retrospective audits should be accomplished through chart audits or patient  
3925 care records reviews.
- 3926 (B) Direct observation of performance.
- 3927 (7) The AMP shall demonstrate a customer service process which addresses  
3928 complaints, concerns, comments, and service inquiries.
- 3929 (A) The AMP shall document investigation.
- 3930 (B) The AMP must document written closure.

3931  
3932

3933 For centuries, humankind has striven to improve upon the status quo. There has been a  
3934 continuous process of examining present day performance in an attempt to improve  
3935 understanding, efficiency, and outcomes.

3936

3937 Quality Improvement is an ongoing system that includes retrospective review, concurrent  
3938 review, and prospective forecasting of clinical care. Quality Improvement also combines  
3939 a circular response through measurement of identified goals and sentinel events,  
3940 identifying opportunities for improvement, re-education, process redesign, and  
3941 measurement of corrective efforts. It is the process of taking a collective look in the  
3942 mirror, and discovering what parts of the service we want to improve? Should we find  
3943 that we are satisfied with the reflection, we need to be able to explain why.

3944

3945 The ultimate goal of Quality Improvement focuses on enhancing the provider's ability to  
3946 provide patient care and excellent customer service while continuing to be clinically  
3947 sophisticated and fiscally responsible.

3948

3949 ~~The ultimate goal focuses on providing better care and service tomorrow than we are~~  
3950 ~~capable of today.~~

3951

3952 ~~Information discovered as a result of a legitimate quality improvement program MAY be~~  
3953 ~~protected from discovery in administrative hearings and civil litigation. The Texas~~  
3954 ~~Department of State Health Services, the legislature and the Courts recognize that this~~  
3955 ~~protection is necessary so that employees and volunteers are encouraged to bring items of~~  
3956 ~~concern in matters of policy, protocol, or treatment to the attention of the QI manager.~~  
3957 ~~Agencies are encouraged to learn how to provide optimal protection for their QI process.~~

3958

3959 Quality Improvement is a non-punitive process designed to provide opportunities for  
3960 personal and/or professional growth for the individual and agency. In order to be

3961 successful, the entire firm must embrace the philosophy. This may be a difficult concept  
3962 for some to understand. One's past experience may indicate that it is much easier to  
3963 punish than to teach. Because of this, many staff members doubt the sincerity of the  
3964 commitment to grow, and instead, fear punishment.

3965  
3966 Disciplinary action is a last resort for any quality improvement program. Disciplinary  
3967 action should be reserved for extreme instances of repeated violations of protocol or  
3968 policy despite remediation efforts, the breach of confidentiality, or refusal to participate  
3969 in the quality improvement program.

3970  
3971 Participation of the medical director is essential. As Medical Director, responsibility and  
3972 liability begins when the call is received. The medical director is responsible for every  
3973 phase of the emergency response and the actions of the personnel until the release of the  
3974 patient. A QI program serves to provide a monitoring mechanism for patient care,  
3975 response times, equipment and apparatus, and patient outcomes. QI provides a platform  
3976 from which to direct continuing education, allowing CE to be tailored to the specific  
3977 needs of the service and it provides a consistent and even handed measure to determine  
3978 problem trends that may require intervention by the medical director.

3979  
3980 It is the system administrator's duty to ensure the viability of the quality improvement  
3981 program. Open mindedness cannot be overemphasized. The nature of quality  
3982 improvement may be threatening to the administration. No one enjoys being scrutinized.  
3983 Thus, the role of the administration is to make the process non-threatening so that looking  
3984 in the mirror is a less painful process.

3985  
3986 Staff members should be given the opportunity to actively participate in the program.  
3987 Peer review auditing and upward evaluation of clinical practice provides the staff  
3988 member with avenues to effect positive change and may serve to improve morale.

3989  
3990 In order for the process to be efficient, a limited number of people should be involved at  
3991 any one time. This group of people should include representation of the agency from all  
3992 levels. The medical director and the administrator should remain active in the process,  
3993 but other members should be rotated so that anyone willing to participate has the  
3994 opportunity to do so.

3995  
3996 Other potential participants in the Quality Improvement Committee include:

- 3997 ● Medical Director
- 3998 ● Clinical Manager
- 3999 ● Field Representative
- 4000 ● Field Supervisor Representative
- 4001 ● Hospital ER Representative
- 4002 ● Representation from the local physician community
- 4003 ● Professional Educator
- 4004 ● Billing Representative
- 4005 ● Communications Representative

- 4006 • Pilot
- 4007 • Mechanic
- 4008 • Administrative Assistant

4009

4010 ~~Quality improvement is a problem-solving process. It is comprised of five familiar~~  
4011 ~~components that closely mirror the problem-solving process used in patient care and other~~  
4012 ~~daily activities.~~

4013

4014 ~~The components are:~~

- 4015 • ~~Assessment~~
- 4016 • ~~Goal setting~~
- 4017 • ~~Plan development~~
- 4018 • ~~Intervention~~
- 4019 • ~~Progress evaluation~~

4020

4021 ~~Monitoring and evaluation involves continuously collecting data about important aspects~~  
4022 ~~of care/service, analyzing the data and recommending needed steps to improve based up~~  
4023 ~~on the analysis. The lingering question is “how to carry out monitoring and evaluation?”~~

4024

4025 ~~A sample, well proven, 10-step Monitoring and Evaluation process:~~

- 4026 1. ~~Assign responsibility~~
- 4027 2. ~~Delineate scope of care~~
- 4028 3. ~~Identify important aspect of care~~
- 4029 4. ~~Identify indicators~~
- 4030 5. ~~Establish thresholds for evaluation~~
- 4031 6. ~~Collect and organize data~~
- 4032 7. ~~Evaluate care~~
- 4033 8. ~~Take actions to improve care~~
- 4034 9. ~~Assess effectiveness of action~~
- 4035 10. ~~Communicate findings~~

4036

4037 ~~Some example indicators to assess may include:~~

4038

- 4039 • ~~Scene times~~
- 4040 • ~~Protocol compliance~~
- 4041 • ~~Endotracheal intubation success~~
- 4042 • ~~Cardiac arrest survival~~
- 4043 • ~~Specialty patients (pediatric, OB)~~
- 4044 • ~~IABP or Invasive Monitoring Patients~~
- 4045 • ~~Pain management~~
- 4046 • ~~Unit hour utilization~~
- 4047 • ~~Controlled substance use~~
- 4048 • ~~Invasive Procedures~~

- 4049 • ~~Who are discharged home directly from the Emergency Department, or~~
- 4050 ~~discharged within 24 hours of admission.~~
- 4051 • ~~Who are transported without an IV line or oxygen?~~
- 4052 • ~~Upon whom CPR is in progress at referring location.~~
- 4053 • ~~Who are not transferred from a critical care unit?~~
- 4054 • ~~Who are "scheduled transports?"~~
- 4055 • ~~Who is air transported more than once for the same illness or injury within 24~~
- 4056 ~~hours.~~
- 4057 • ~~Who are transported from the scene of injury with a trauma score of 15 or~~
- 4058 ~~greater or fails to meet area-specific triage criteria for a critically injured~~
- 4059 ~~trauma patient.~~
- 4060 • ~~Who are treated at scene, but not transported.~~
- 4061 • ~~Who are not transferred bedside to bedside by the flight team?~~
- 4062 • ~~Who are transported inter facility, and the receiving facility is not a higher~~
- 4063 ~~level of care than the referring facility?~~

4064

4065 ~~The strengths of using a monitoring and evaluation system are:~~

- 4066 1. ~~It is a viable method of performance improvement, and~~
- 4067 2. ~~It is a systematic approach that guides staff through this difficult and~~
- 4068 ~~time-consuming event. It emphasizes the importance of collecting data~~
- 4069 ~~—the lynch pin of improvement efforts—related to valid and reliable~~
- 4070 ~~indicators.~~

4071

4072 ~~It also emphasizes linking improvement actions to that data so that changes are made~~

4073 ~~based on solid information rather than intuition.~~

4074

4075 ~~Organizations are encouraged to set priorities for improvement by first cataloging the~~

4076 ~~range of services provided and then giving priorities to the most important aspect—those~~

4077 ~~that are high risk/low volume (less than 30 per period), high risk/high volume (greater~~

4078 ~~than 30 per period), and/or problem prone. Agencies should consider building a matrix~~

4079 ~~of these situations to focus their monitoring and evaluation system.~~

4080

4081 With the advent of electronic patient care records, chart review may take many forms

4082 beyond reading a written record. Agencies should be able to demonstrate an appropriate

4083 method of chart review given their resources and abilities. Random audits of at least 5%

4084 of high risk/high volume or 100% of high risk/low volume should be included. Agencies

4085 should be able to demonstrate their approach to reviewing particular problem prone

4086 situations.

4087

4088 Agencies must demonstrate the methods used to define the review process, including the

4089 sampling methodology, filters, and triggers.

4090

4091 An organized method of obtaining direct observation through field evaluations and

4092 feedback from hospital personnel should also be considered.

4093

4094 Finally, organizations should consider the needs and expectations of “customers.”  
4095 Measuring their satisfaction can provide valuable assessments of the quality of care  
4096 rendered by an organization.

4097

4098 A small number of steps can be summarized for implementation of a complete  
4099 monitoring and evaluation program:

- 4100 • Set priorities for measurement
- 4101 • Identify worthwhile indicators– identify audit filters
- 4102 • Teach staff how data for the indicators can be collected
- 4103 • Encourage staff to study data

4104

4105 The agency is also responsible to insure that the corrective action plans are implemented  
4106 and reassessed, also known as “closing the loop.”

4107

4108

4109

4110

## ONGOING PERFORMANCE IMPROVEMENT

4111

4112 Evidence of ongoing surveillance of field implementation of the agencies protocols is  
4113 essential. Ongoing review as previously described merely demonstrates that the protocols  
4114 were reviewed by the medical director and that personnel were exposed to the material.  
4115 The final piece of the protocol puzzle is ongoing surveillance of the protocols in the  
4116 actions of the field personnel. Again, many methods are available to an agency to fulfill  
4117 this goal.

4118

4119 Typically, surveillance falls into two broad categories:

- 4120 • Direct observation
- 4121 • Retrospective review

4122

4123

### DIRECT OBSERVATION

4124 Direct observation can be accomplished by peer review, field training officers, the  
4125 medical director, or others charged with performing field evaluations. Some agencies  
4126 prefer that the evaluator ride as a third participant on the aircraft so that they can view the  
4127 call from beginning to end. Others rely on a third party arriving on scene and performing  
4128 the evaluation. Still others have an appropriate party meet the crew at the receiving  
4129 facility or rely on hospital staff to review the progress and initial outcome of the patient.  
4130 Ideally, an agency would incorporate all three aspects into the evaluation process.  
4131 Regardless, an agency must be able to demonstrate some form of practical protocol  
4132 compliance.

4133

4134 For some agencies on scene evaluation is an unrealistic expectation. Barriers, such as  
4135 financial constraints, low call volume, expansive territory, or an unreasonably small or  
4136 large staff, might necessitate an alternative method of observation. In these cases, an

4137 agency might look to realism training or scene simulations as a legitimate method of  
4138 measuring “real world” protocol compliance.  
4139

#### 4140 RETROSPECTIVE ANALYSIS

4141 Retrospective analysis is most often accomplished by auditing charts or patient care  
4142 report (PCR) records. While this may be the most time efficient method of assessing  
4143 protocol compliance, it is also the most biased. First, auditing records makes the giant  
4144 assumption that the record accurately reflects the actions and timeline of the actual call.  
4145 At a minimum, the run record is an annotated description of the call’s events, devoid of  
4146 contextual reference. Agencies must promote accurate and thorough documentation by  
4147 their field crews.

4148  
4149 Agencies forced to rely on retrospective analysis, should define a minimum data set of  
4150 objective criteria in which to evaluate protocol compliance.

4151  
4152 Although not condoned, it is not unreasonable to believe that the average provider paints  
4153 the best picture possible of the call just completed. Often, real time data is lost and the  
4154 times documented are an estimate at best.

4155  
4156 In addition, retrospective analysis does not have the benefit of context. Minor deviations  
4157 or protocol interpretations may seem less defensible when considered in an air-  
4158 conditioned room, out of the rain, or away from screaming bystanders. Many times,  
4159 making decisions with the information available at the time cannot be compared to those  
4160 made after more complete, thoughtful deliberation.

4161  
4162 Again, regardless of the method, the agency must demonstrate an effective method of  
4163 providing actual compliance with the written protocols. The agency must develop a  
4164 policy or procedure for managing protocol deviations as well.

4165

#### 4166 Required:

- 4167 • Ongoing Performance Improvement
- 4168 • A five component problem solving process with the following components:
- 4169 • Assessment
- 4170 • Goal Setting
- 4171 • Plan Development
- 4172 • Intervention
- 4173 • Progress Evaluation
- 4174 • There shall be an assessment of the provider’s daily activities.
- 4175 • Agencies shall have measurable clinical indicators that are regularly assessed  
4176 for compliance with established thresholds.
- 4177 • An appropriate, organized and prioritized monitoring and evaluation system  
4178 for compliance with documentation standards, correct protocol selection, and  
4179 appropriate patient care.

4180

- 4181 ~~All individual performance of skills will be tracked for each patient care provider.~~  
4182 ~~There shall be an assessment of the following categories:~~
- 4183 • ~~Personnel/Staffing~~
  - 4184 • ~~Clinical Care (Skills performance, Protocol Selection, Patient Assessment,~~  
4185 ~~etc.)~~
  - 4186 • ~~Customer Relations program~~
  - 4187 • ~~Education~~
  - 4188 • ~~Administrative/operational policies~~
  - 4189 • ~~Compliance with Safety Guidelines~~
  - 4190 • ~~Compliance with Infection Control Practices~~
- 4191  
4192  
4193

## 4194 COMPLAINT RESOLUTION PROCESS

4195  
4196 Customers (i.e. patients, family members, facility representatives, first responders, tax  
4197 payers, etc.) contact their local EMS agency with a variety of questions and concerns,  
4198 complaints and/or compliments. EMS agencies must be responsive these issues, insuring  
4199 that the public's interest is addressed.

4200  
4201 Tracking and monitoring the substance of such inquiries will aid an agency in better  
4202 meeting the needs of its customer base and/or constituency. Informal and formal  
4203 complaints provide the agency with insight into areas of potential improvement.  
4204 Questions and comments may demonstrate a need for greater public awareness or  
4205 advertising on a particular topic or issue. Compliments and other expressions of  
4206 gratitude provide the agency and its employees with a glimpse of the good work that is  
4207 done in the community. Regardless of its motivation or content, customer feedback is a  
4208 valuable tool for system improvement.

4209  
4210 Examples:

- 4211 • The trauma surgeon reports a good patient outcome because the crew rapidly  
4212 assessed the patient
  - 4213 • You receive a card thanking the crew for their timely response and quality care
  - 4214 • A caller thinks you should be doing more to combat drunk driving
  - 4215 • Through your website, a citizen e-mails a request asking why you bill for services  
4216 when you they pay taxes to support the agency
  - 4217 • A fire chief feels that response times are slipping
- 4218

4219 Constructing and adhering to a service inquiry protocol is an essential step in tracking  
4220 and analyzing customer service inquiries. Such a protocol insures that the customer's  
4221 concern is documented, investigated, and appropriate steps taken to maintain or enhance  
4222 the system's performance. This includes complaints, comments, and compliments.

4223

4224

## COMPONENTS OF A SERVICE INQUIRY PROTOCOL:

4225

4226

### INTAKE

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4227

As noted in the examples above, initial contact with the agency may occur through a variety of channels. An agency should establish and advertise a variety of means for the public to contact the agency. Such variety encourages public comment and enhances the likelihood that any given citizen will correspond with the agency.

4231

4232 Examples of intake opportunities include:

4233

- Phone

4234

- Address

4235

- Email

4236

- Website

4237

- Billing department

4238

- Customer satisfaction survey

4239

- Dedicated comment field on invoices

4240

- Suggestion boxes in local ER's

4241

- Customer Inquiry Hotline

4242

4243 The person or collection device receiving the initial contact should attempt to record the customer's name, contact number, and general nature of the inquiry. Additional information, such as specific call data, can be very helpful.

4246

4247

### POLICY

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4248

The agency must establish and maintain a service inquiry policy/procedure. The policy should define what constitutes an inquiry.

4249

4250

4251

The policy should address what should be done when a complaint, concern, or compliment is received by an interested party (another professional in the field, patient, citizen, co-worker, etc.). The policy shall address what information should be gathered, appropriate consultation of supervisors, the timely implementation of a resolution and the appropriate type of feedback to the individuals involved in the incident. Each of these areas is further discussed below.

4252

4258

### DOCUMENTATION

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4259

Regardless of the method of initial contact, all inquiries should be routed to central point to be recorded in a logbook and forwarded to the appropriate party for further information gathering.

4260

4261

4262

4263

### INVESTIGATION

---

4264 (The term “investigation” should be implied to mean appropriate follow-up on both  
4265 positive and negative customer service inquiries. It does not necessarily refer to a potential  
4266 disciplinary situation.)

4267  
4268 It is recommended that the lead investigator should make contact with the customer. This  
4269 conveys a sense of importance to the customer, letting them know that their complaint,  
4270 concern, or compliment is important to the agency. During this contact, the investigator  
4271 can get more specific information regarding the event or issue.

4272  
4273 In situations involving customer complaints, the investigator should inform the customer  
4274 of the complaint investigation process, a timeline for completion, and inquire as the  
4275 feedback that the customer expects. Often customer do not want feedback, they merely  
4276 want to make you aware of a situation. If feedback is requested, the investigator should  
4277 inform the customer that the agency cannot discuss potential disciplinary action, but will  
4278 be happy to inform them of the general outcome of the investigation and resolution of the  
4279 complaint.

4280  
4281 Knowing that there are two sides of every story, it is imperative that the agency personnel  
4282 involved have an opportunity to relate their version of the event. Even in complimentary  
4283 cases, the personnel may be able to report actions or strategies they initiated that caused  
4284 the customer to be especially grateful. Certainly, if a particular crew receives an  
4285 extraordinary amount of positive customer appreciation, the agency should observe the  
4286 crew’s actions and attempt to seed similar behavior in other personnel.

4287  
4288 Both customer and personnel accounts of the event should be documented by the  
4289 investigator. Written accounts by the personnel may be helpful as well, especially if  
4290 disciplinary action is anticipated.

4291  
4292 The investigator should document what they believe to be chain of events based on the  
4293 information obtained from all pertinent parties.

4294

4295 **REFERRAL**

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4296 In some cases, the investigator will find it necessary to include other individuals in the  
4297 investigation and decision-making process. The agency administrator, medical director,  
4298 human resources coordinator and immediate supervisors are likely to be advised of the  
4299 situation or called upon to craft and prudent outcome.

4300

4301 **CLOSURE**

---

4302 At the conclusion of the investigation, feedback should be given to all parties involved.  
4303 For praise situations, this might include providing a copy of the appreciation letters to the  
4304 employee and their personnel file.

4305

4306 In quality improvement and/or disciplinary situations, personnel should be coached in  
4307 method to avoid similar situations in the future. In some cases, case studies can be  
4308 developed and published so that the entire agency can benefit from what might have been  
4309 an unusual situation.

4310  
4311 Follow-up with the customer will often provide a sense of closure and satisfaction.  
4312 Customers expect that service will not always be delivered at peak efficiency. They  
4313 know that individuals have bad days. In most cases, what really matters is how an  
4314 agency responds to their concerns. Demonstrating that the agency listened and  
4315 responded in an appropriate manner may be all that is necessary to convert an unsatisfied  
4316 complainer into a completely satisfied customer.

4317

4318

### RECORD KEEPING

4319 One of the first steps in the service inquiry protocol should be the recording of the  
4320 complaint, concern or compliment in some form of inquiry log. The person maintaining  
4321 the log should be charged with insuring that inquiries are handled in an appropriate time  
4322 frame and returned for filing. Should this person recognize that a particular inquiry has  
4323 not been closed, this should be reported to a person of sufficient authority who can urge  
4324 the process to a resolution.

4325

4326 To be anything more than a complaint resolution process, an agency must maintain  
4327 inquiry records and periodically complete a trending analysis. The importance of such a  
4328 process has been previously discussed, but its importance cannot be under-emphasized.

4329

4330 Required:

- 4331 • Complaint Resolution Process
- 4332 • A centralized location and/or process for receiving inquiries.
- 4333 • An established triage process to direct inquiry resolution along potential  
4334 disciplinary or Quality Improvement avenues
- 4335 • A process that ensures the confidentiality of all complaints and investigations.
- 4336 • A method to track/trend the nature of each inquiry and feed data into the Quality  
4337 Improvement program.

4338

4339

4340

### ~~RESPONSE TO SENTINEL EVENTS~~

4341

4342 ~~Emergent problems (sentinel events) may arise in any of the categories and topics listed~~  
4343 ~~above. The most noticeable tend to fall in the clinical arena. These problems are the~~  
4344 ~~ones that tend to get everyone's attention, spread quickly through the agency, and cause~~  
4345 ~~each individual to comment on how they would have handled the situation differently.~~  
4346 ~~They are also the problems that are most likely to cause spontaneous, adverse reactions~~  
4347 ~~from supervisors, managers, and the medical director.~~

4348

4349 | ~~The first question one must ask when faced with such a situation, clinical or not, is what~~  
4350 | ~~was the root cause of the decisions and/or actions that were made. Was it due to malice or~~  
4351 | ~~a defective process? The cause should determine whether the corrective action should be~~  
4352 | ~~handled via operations (discipline) versus quality improvement (growth).~~

4353 |  
4354 | ~~Assuming you find the error was made due to a deficit in processes, it is the agency's~~  
4355 | ~~obligation to prevent the error and similar errors in the future.~~

4356 |  
4357 | ~~Various mechanisms can be instituted to find problems. An EMS provider should~~  
4358 | ~~provide formal methods of data analysis. Other more informal methods such as the~~  
4359 | ~~"grapevine" can also be used. The most common method of finding problems is the~~  
4360 | ~~"grapevine". Some services require complaints and/or concerns to be in writing.~~  
4361 | ~~Because people are often reluctant to "document" concerns against a peer, quality~~  
4362 | ~~improvement requires that hearsay concerns be investigated.~~

4363 |  
4364 | ~~All aspects of the problem must be investigated. How and why the problem occurred~~  
4365 | ~~should be the focus. Each individual involved should be asked about their observations~~  
4366 | ~~and opinions of the incident as it occurred, and retrospectively, what they would do~~  
4367 | ~~differently.~~

4368 |  
4369 | ~~Given time and due consideration, rather than immediate reaction to a given problem, the~~  
4370 | ~~QI process may discover extenuating circumstances which may justify the decisions~~  
4371 | ~~made, or point to a simple education/training solution, rather than a punitive solution~~  
4372 | ~~based on reflex.~~

4373 |  
4374 | ~~Trending is important to know how often this situation presents itself. In addition, an~~  
4375 | ~~attempt should be made to assess how likely others have been and/or would be to make~~  
4376 | ~~the same decisions and actions.~~

4377 |  
4378 | ~~Resolution and prevention may take many forms. Most common is some form of~~  
4379 | ~~education to bring all personnel to a higher minimum competency level. Often, re-~~  
4380 | ~~engineering of the work place or effort may improve efficiency or avoid future problems.~~  
4381 | ~~Protocols may be revised or clarified. Likewise, policies or procedures may be~~  
4382 | ~~developed or re-written. Administrative or clinical controls may be implemented to~~  
4383 | ~~accommodate the new information received during the process.~~

4384 |  
4385 | ~~Quality improvement is a dynamic process that is used to not only improve the service to~~  
4386 | ~~the community, but to prove the value of your agency to the community. Excellence can~~  
4387 | ~~only be achieved with active participation in a process that explores daily activities.~~  
4388 | ~~Activities that demonstrate excellence should be documented and emphasized. Those~~  
4389 | ~~needing improvement must be recognized and adapted. In the end, the public will receive~~  
4390 | ~~a higher level of care in a more efficient manner.~~

4391 |  
4392 | ~~Required:~~  
4393 |

- 4394 • ~~Sentinel Event Management~~
- 4395 • ~~There shall be a definition for sentinel event and “near-misses.”~~
- 4396 • ~~There shall be an assessment of the provider’s response to emergency problems~~
- 4397 ~~(sentinel events). (Equipment failures, supply deficiencies, medication errors,~~
- 4398 ~~fleet failures, etc.)~~
- 4399 • ~~A system in place to monitor customer satisfaction and conflict resolution with~~
- 4400 ~~the system (Patients and Hospital Personnel are considered customers)~~

4401  
4402  
4403

## ON-GOING CORRECTIVE ACTION

4404

4405  
4406 No Quality Improvement or Service Inquiry system could ever be complete without on-  
4407 going corrective action. The whole purpose of the improvement cycle is to ensure that  
4408 problem areas are corrected and that the corrections can be documented.

4409

4410 By documenting any on-going corrective action, a provider can ensure that the Quality  
4411 Improvement and Formal Complaint Tracking Process are directing its improvement  
4412 activities.

4413

4414 Some examples of on-going corrective action are: education for personnel with an  
4415 identified deficiency, re-engineering of the work place to improve efficiency, revision of  
4416 protocols for clarification and policies or procedures developed or re-written to address a  
4417 new problem or issue.

4418

4419 All Air Medical Service providers must document problems and report the action taken to  
4420 correct these problems. This documentation must be used to create a reporting structure  
4421 that will allow for analysis of trends and statistics and still protect the confidentiality of  
4422 the documents being studied.

4423

4424

4425

4426 Required:

4427

4428

- 4428 • On-Going Corrective Action
- 4429 • At least annual documentation of the results of the Quality Improvement efforts  
4430 and Formal Inquiry Tracking Process. Areas of the program determined to be in  
4431 need of improvement will be identified, objectives developed and implemented,  
4432 reassessed, and reported.
- 4433 • Efforts to resolve and reassess identified individual deficiencies will be  
4434 documented.
- 4435 • Privilege/confidentiality policies and methods.

4436

4437

## SECTION 10: ESTABLISHED COMMITTEES

### 157.12 Proposed Rule Language – Rotor Wing Operations

- 4438
- 4439
- 4440
- 4441 (k) An AMP must provide evidence of Oversight Committees with the following
- 4442 elements:
- 4443 (1) The AMP shall demonstrate the ability of all personnel to report and direct
- 4444 information to its committees
- 4445 (A) In a defined and easily accessible method.
- 4446 (B) Anonymously if the respondent so desires.
- 4447 (C) That provides a recording and tracking mechanism for the report.
- 4448 (2) The AMP shall demonstrate that its oversight committees publish and disseminate
- 4449 their meeting minutes and provide information to all levels of the organization.
- 4450 (3) The AMP committee's must:
- 4451 (A) Have a charter that clearly states the policies, objectives and requirements of
- 4452 the committee.
- 4453 (B) Have representatives from all disciplines with the AMP.
- 4454 (C) Must review and oversee each element of its charter.
- 4455 (4) An Air Medical Provider must provide evidence that it has Oversight Committees
- 4456 encompassing:
- 4457 (A) Safety Management Systems Committee (SMSC)
- 4458 (B) Quality Improvement Committee (QIC)
- 4459 (C) Education Committee (EC)
- 4460 (i) The EC includes external representatives as required to review education
- 4461 processes.
- 4462 (D) Communications Committee (CC)
- 4463 (i) The CC includes external representative customers for review of external
- 4464 relationships as required.
- 4465 (E) Public Information & Outreach Committee (PIOC) [Optional]
- 4466 (i) The PIOC incorporates external representatives for review as required.
- 4467 (F) Product Review Committee (PRC) [Ad Hoc]
- 4468 (G) Protocol Development and Review Committee (PDRC)
- 4469 (i) The PDRC reviews and oversees each element of the Protocol based on
- 4470 QIC reports and best practices within the pre-hospital environment.
- 4471 (H) Customer Service Committee (CSC)
- 4472 (i) The CSC incorporates external representative stakeholders as indicated by
- 4473 program needs.
- 4474 (5) An Air Medical Provider must demonstrate its active participation with all
- 4475 required external committees.

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157.13 Proposed Rule Language – Fixed Wing Operations

- (k) An AMP must provide evidence of Oversight Committees with the following elements:
  - (1) The AMP shall demonstrate the ability of all personnel to report and direct information to its committees
    - (A) In a defined and easily accessible method.
    - (B) Anonymously if the respondent so desires.
    - (C) That provides a recording and tracking mechanism for the report.
  - (2) The AMP shall demonstrate that its oversight committees publish and disseminate their meeting minutes and provide information to all levels of the organization.
  - (3) The AMP committee’s must:
    - (A) Have a charter that clearly states the policies, objectives and requirements of the committee.
    - (B) Have representatives from all disciplines with the AMP.
    - (C) Must review and oversee each element of its charter.
  - (4) An Air Medical Provider must provide evidence that it has Oversight Committees encompassing:
    - (A) Safety Management Systems Committee (SMSC)
    - (B) Quality Improvement Committee (QIC)
    - (C) Education Committee (EC)
      - (i) The EC includes external representatives as required to review education processes.
    - (D) Communications Committee (CC)
      - (i) The CC includes external representative customers for review of external relationships as required.
    - (E) Public Information & Outreach Committee (PIOC) [Optional]
      - (i) The PIOC incorporates external representatives for review as required.
    - (F) Product Review Committee (PRC) [Ad Hoc]
    - (G) Protocol Development and Review Committee (PDRC)
      - (i) The PDRC reviews and oversees each element of the Protocol based on QIC reports and best practices within the pre-hospital environment.
    - (H) Customer Service Committee (CSC)
      - (i) The CSC incorporates external representative stakeholders as indicated by program needs.
  - (5) An Air Medical Provider must demonstrate its active participation with all required external committees.

4514

4515

4516 While the medical director is ultimately responsible for the quality of pre-hospital care  
4517 provided under his/her license, quality care is dependent on more than just the input of  
4518 the medical director. Every facet of an agency's operation can and does impact the  
4519 patient's overall therapeutic experience. Many of these areas are far beyond the scope of  
4520 the medical director's knowledge, skill, experience, or interest.

4521

4522 Even within the clinical arena, those delivering the care have a vested interest in the  
4523 development of the agency's therapeutic personality. Experience tells us that those  
4524 employees long for involvement as it increases a sense of personal value and contribution  
4525 to the agency. A positive side effect of such involvement is the fact that employee  
4526 involvement fosters ownership in the decisions and greater compliance and satisfaction  
4527 with the process. In situations where a plan obtains limited success, the inclusion of a  
4528 variety of personnel in the planning and implementation process dilutes the negative  
4529 impact of the failed operation on any one person.

4530

4531 Every agency is composed of personnel who have opinions on how to get the job done  
4532 (just ask the personnel). Personnel have a unique vantage point within the agency and  
4533 many times have a wealth of knowledge and ideas that could enhance area of the  
4534 operation that impact the provision of clinical care. It is critical that organizations  
4535 provide methods for any employee to report their suggestions, concerns and comments  
4536 through a defined process that is easy for the employee to utilize. Some examples may  
4537 be found in compliance processes; in fact the system should mimic that style of reporting  
4538 mechanism, an 800 number, an email address, a fax line and/or a secure suggestion box.

4539

4540 ~~Likewise every agency is unique in its structure and components. This then will require~~  
4541 ~~unique adaptation of the structure and interaction of committees. For example a small~~  
4542 ~~single aircraft operator may only have enough personnel to man every committee by~~  
4543 ~~themselves. A unique and creative solution to this circumstance may be that the entire~~  
4544 ~~employee group serves on multiple, concurrent committees, which may or may not~~  
4545 ~~choose to convene at the same times. Use of the power of the individual personnel is the~~  
4546 ~~emphasis and strength behind committees. Committees enable consensus and evolution~~  
4547 ~~of the AMP to provide significant increases in ability to understand and improve~~  
4548 ~~operations.~~

4549

4550 ~~Traditionally, we think of committees as small working groups that exist into perpetuity.~~  
4551 ~~Over time, it is common for committees to stagnate and become counterproductive. This~~  
4552 ~~does not necessary need to be the case. In fact, it may be beneficial for such groups to~~  
4553 ~~have a limited scope and a defined lifespan.~~

4554

4555 ~~A task force or working group can be formed to explore a particular topic, formulate a~~  
4556 ~~report and implement the result. Once complete, the group is disbanded and new group is~~  
4557 ~~composed to tackle the next opportunity. Such an approach maximizes the opportunity~~

4558 ~~for individual participation and tends to promote a greater degree of enthusiasm within~~  
4559 ~~the organization.~~

4560  
4561 ~~Regardless of the approach, there are a limitless number of areas for personnel to~~  
4562 ~~contribute. Listed below are a variety of committee examples that an agency should~~  
4563 ~~consider. Just as the Incident Command System can be consolidated or expanded in~~  
4564 ~~scope dependent on the demands of the particular incident, so too can the committee~~  
4565 ~~options listed below dependent on the size and nature of the agency.~~  
4566

4567

### SAFETY MANAGEMENT SYSTEMS COMMITTEE

4568 Workplace injuries and exposures pose a significant threat to physical health pre-hospital  
4569 providers and to the financial health of the agency. A safety committee is designed to  
4570 review workplace practices and offer suggestion and/or policies that promote a safer  
4571 work environment. Specific attention should be dedicated to the proactive review of  
4572 infection control methods, techniques, aviation safety, crew resource management,  
4573 communications center, etc.  
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### QUALITY IMPROVEMENT COMMITTEE

4576 In most agencies, the QI process utilizes a committee to review clinical care and  
4577 recommend improvement strategies.  
4578

4579

### EDUCATION COMMITTEE

4580 In conjunction with the Quality Improvement process, the education committee  
4581 recommends, develops, and implements professional development programs. Many of  
4582 these will be clinically focused to meet proactive or retrospective clinical QI needs.  
4583 However, other aspects of the QI process, including the Service Inquiry Protocol, may  
4584 identify issues not traditionally classified as clinical, but important to patient's overall  
4585 outcome. Examples might include such things as preceptor training or conflict resolution  
4586 skills.  
4587

4588

### COMMUNICATIONS COMMITTEE

4589 Quality clinical care begins when the phone rings in the communications center. The  
4590 committee should be charged with monitoring compliance with the protocols, phone  
4591 etiquette, and compliance with weather reporting turndowns, EMResource (EMSystems)  
4592 updates and daily briefing.  
4593

4594

### PUBLIC INFORMATION AND EDUCATION COMMITTEE (OPTIONAL)

4595

4596 Outreach programs designed to raise awareness and promote the health and safety of the  
4597 community are an important part of many Air Medical Service Programs. The

4598 responsibility for assessing the need and meeting the demand falls to a Public  
4599 Information and Education Committee.  
4600

### 4601 PRODUCT EVALUATION COMMITTEE (AD HOC)

4602 The delivery of out of hospital care is advancing at a pace equivalent to the health care  
4603 industry as a whole. Because of this, a tremendous number of new products and supplies  
4604 are being introduced each year. Agencies owe it to their constituency, personnel, and  
4605 patients to critically review these potential advancements for their efficacy and utility in  
4606 the Air Medical Service environment.  
4607

### 4608 PROTOCOL DEVELOPMENT AND REVIEW COMMITTEES

4609 Many medical directors have found it near impossible to research every advancement and  
4610 alteration in clinical practice across the broad horizon of out of hospital care. In general,  
4611 Air Medical Service Personnel are extremely interested in remaining current in EMS  
4612 clinical issues. Consequently, they are often eager to participate in committee work in  
4613 specific areas of clinical interest. An agency might establish small work groups focused  
4614 on areas such as cardiac, respiratory, trauma, or pediatrics.  
4615

4616 This committee should encompass advising the Medical Director on protocol  
4617 development as well as being stewards of the AMP's involvement with the Healthcare  
4618 System. A Healthcare system is composed of pre-hospital providers, sending and  
4619 receiving facilities, tertiary facilities and educational institutions. An AMP should strive  
4620 to regularly incorporate comments, input and feedback from the Healthcare System in  
4621 protocol development and clinical care.  
4622

### 4623 CUSTOMER SATISFACTION COMMITTEE

4624 Agencies have a vested interest customer satisfaction. Meeting the expectations of  
4625 patients and the constituency at large is essential for the long-term success of an agency.  
4626 Failure to address satisfaction issues might lead to public discord, hostility and eventually  
4627 threats of changing who provides service to a particular population or facility.  
4628

4629 Agencies must take advantage of the resources found in their employee roster. The  
4630 intellectual experience of sharing ideas through a collaborative environment will promote  
4631 quality patient care and a more productive workplace.  
4632

4633  
4634 The organization should provide documentation that it participates in outside committees  
4635 as well. Some committees that require active involvement of a licensed AMP in the State  
4636 of Texas are the Air Medical Providers Group (AMPAG) of the Regional Advisory  
4637 Council (RAC), voluntary participation local EMS systems and trauma groups, statewide  
4638 Governor's Emergency Trauma Advisory Council Air Medical Committee, EMS  
4639 Committee and other opportunities to engage as a state wide resource in the state wide  
4640 EMS System.

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## SECTION 11: MEDICAL DIRECTOR QUALIFICATIONS

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### 157.12 Proposed Rule Language – Rotor Wing Operations

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(I) The AMP shall designate or employ a medical director who shall meet the following qualifications:

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- (1) A physician who is currently licensed in the state of Texas, in good standing with the Texas Medical Board, in compliance with the Texas Board of Medical Examiners Rules, particularly regarding Emergency Medical Services as outlined in 22 TAC 197, and in compliance with Subtitle B of Title 3 of the Texas Occupations Code;
- (2) Have knowledge and experience consistent with the transport of patients by air;
- (3) Be knowledgeable in aeromedical physiology, stresses of flight, aircraft safety, patient care, and resource limitation of the aircraft, medical staff and equipment;
- (4) Have access to consult with medical specialists for patient(s) whose illness and care needs are outside the medical director's area of practice; and
- (5) The physician shall fulfill the following responsibilities:
  - (A) Ensure that there is a comprehensive plan/policy to address selection of appropriate aircraft, staffing and equipment.
  - (B) Be involved in the selection, hiring, training, and continuing education of all medical personnel.
  - (C) Be responsible for overseeing the development and maintenance of a QI program.
  - (D) Participate in any administrative decision making processes that affect patient care.
  - (E) Ensure that there is an adequate method for on-line medical control, and that there is a well defined plan or procedure and resources in place to allow off-line medical control.
  - (F) Oversee the review, revision and validation of written medical policies and protocols annually.
  - (G) Knowledgeable about laws and regulations affecting local, regional, and state EMS operations.
  - (H) Actively involved in administrative and legislative environments affecting regional and/or state pre-hospital organizations.

### 157.13 Proposed Rule Language – Fixed Wing Operations

4678

- 4679 (I) The AMP shall designate or employ a medical director who shall meet the following  
4680 qualifications:
- 4681 (1) A physician who is currently licensed in the state of Texas, in good standing with  
4682 the Texas Medical Board, in compliance with the Texas Board of Medical  
4683 Examiners Rules, particularly regarding Emergency Medical Services as outlined  
4684 in 22 TAC 197, and in compliance with Subtitle B of Title 3 of the Texas  
4685 Occupations Code.
- 4686 (2) Have knowledge and experience consistent with the transport of patients by air.
- 4687 (3) Be knowledgeable in aeromedical physiology, stresses of flight, aircraft safety,  
4688 patient care, and resource limitation of the aircraft, medical staff and equipment.
- 4689 (4) Have access to consult with medical specialists for patient(s) whose illness and  
4690 care needs are outside the medical director's area of practice.
- 4691 (5) The physician shall fulfill the following responsibilities:
- 4692 (A) Ensure that there is a comprehensive plan/policy to address selection of  
4693 appropriate aircraft, staffing and equipment.
- 4694 (B) Be involved in the selection, hiring, training, and continuing education of all  
4695 medical personnel.
- 4696 (C) Be responsible for overseeing the development and maintenance of a QI  
4697 program.
- 4698 (D) Participate in any administrative decision making processes that affect patient  
4699 care.
- 4700 (E) Ensure that there is an adequate method for on-line medical control, and that  
4701 there is a well defined plan or procedure and resources in place to allow off-  
4702 line medical control.
- 4703 (F) Oversee the review, revision and validation of written medical policies and  
4704 protocols annually.
- 4705 (G) Knowledgeable about laws and regulations affecting local, regional, and state  
4706 EMS operations.
- 4707 (H) Actively involved in administrative and legislative environments affecting  
4708 regional and/or state pre-hospital organizations.
- 4709
- 4710

4711 No Air Medical Service Program can possibly succeed without the dedication and  
4712 support of an active medical director. Although the amount of time needed may vary  
4713 depending upon the provider, the medical director for an Air Medical Service Program  
4714 must be prepared to spend several hours to several days a week working with the  
4715 provider and its staff.

4716

4717 The medical director is responsible for the overall clinical aspects of the provider. In  
4718 order to qualify as a medical director, each physician should address the following  
4719 elements:

4720

4721 Required:

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1. Medical Director Must be:

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a. Physician licensed to practice in Texas and shall be registered as an EMS medical director with the Texas Department of State Health Services;

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b. Familiar with the design and operation of Air Medical Service systems;

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c. Experienced in emergency care of acutely ill or injured patients;

4727

d. Actively involved in:

4728

i. The emergency management of acutely ill and/or injured patients;

4729

ii. The training and/or continuing education of Air Medical Service Personnel, under his or her direct supervision, at their respective levels of certification;

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iii. The medical audit, review, and critique of the performance of personnel under his or her direct supervision;

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iv. The administrative and legislative environments affecting regional and/or state pre-hospital organizations;

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v. Knowledgeable about local multi-casualty plans;

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vi. Familiar with dispatch and communications operations of Air Medical Service aircraft

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vii. Knowledgeable about laws and regulations affecting local, regional, and state EMS operations.

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Agencies are strongly encouraged to have a contract with their Medical Director that requires the Medical Director to be responsible for the following: Approve the level of care that may be rendered locally by each of the personnel employed by the Air Medical Service agency under the medical director's supervision, regardless of the level of state certification or licensure, before the individual is permitted to provide such care to the public;

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Establish and monitor compliance with field performance guidelines for Air Medical Service personnel;

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Establish and monitor compliance with training guidelines which meet or exceed the minimum standards set forth in the Texas Department of State Health Services EMS certification regulations;

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Develop, implement, and revise protocols and/or standing delegation orders, if appropriate, governing care and medical aspects of patient triage, transport, transfer, dispatch, extrication, rescue, and radio-telephone-telemetry communication by the EMS;

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Direct an effective system audit and quality assurance program;

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Determine standards and objectives for all medically related aspects of operation of the Air Medical Service program including the inspection, evaluation, and approval of the system's performance specifications;

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4765  
4766 Function as the primary liaison between the Air Medical Service administration and the  
4767 local medical community, ascertaining and being responsive to the needs of each;  
4768  
4769 Take or recommend appropriate remedial or corrective measures for Air Medical Service  
4770 personnel, in conjunction with local Air Medical Service administration, which may  
4771 include, but are not limited to, counseling, retraining, testing, probation, and/or field  
4772 preceptor ship;  
4773  
4774 Authority to suspend a certified or licensed individual from medical care duties for due  
4775 cause pending review and evaluation;  
4776  
4777 Establish the circumstances under which a patient might not be transported;  
4778  
4779 Establish the circumstances under which a patient may be transported against his or her  
4780 will in accordance with state law, including approval of appropriate procedures, forms,  
4781 and a review process;  
4782  
4783 Establish criteria for selection of a patient's destination; and  
4784  
4785 Develop and implement a comprehensive mechanism for management of patient care  
4786 incidents, including patient complaints, allegations of substandard care, and deviations  
4787 from established protocols and patient care standards.  
4788  
4789 Be an active participant in the local Regional Advisory Committee including the Medical  
4790 Directors Committee and Air Medical Service Committees.  
4791  
4792 In addition the agreement should outline the specific responsibilities and authority of the  
4793 medical director(s) and the Air Medical Service administration. The agreement should  
4794 describe the process or procedure by which a medical director may withdraw  
4795 responsibility for Air Medical Service personnel for noncompliance with the Emergency  
4796 Medical Service Act, the Health and Safety Code, Chapter 773, the rules adopted in this  
4797 chapter, and/or accepted medical standards;  
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## 4800 SECTION 12: AMP CRITICAL FAILURES

### 4801 157.12 Proposed Rule Language – Rotor Wing Operations

4802  
4803 (m)The AMP will be assessed as a part of the licensure process in demonstrating program  
4804 components and compliance with law.

4805 (1) Failure to address any of the following program components shall be considered a  
4806 Critical Failure and result in loss of or denial of license.

- 4807 (A) Program for credentialing of providers
- 4808 (B) Program for Professional development
- 4809 (C) Protocols or Standards of Care
- 4810 (D) Established Operational Standards
- 4811 (E) Administrative Oversight
- 4812 (F) Communications Center
- 4813 (G) Base or Facility Standards
- 4814 (H) Program for Safety Standards
- 4815 (I) Program for Quality Improvement
- 4816 (J) Established Committees
- 4817 (K) Medical Direction
- 4818 (2) Convictions of any of the following:
- 4819 (A) Violations of law regulating healthcare provider fraud, abuse, kickbacks.
- 4820 (B) Management/Operator convictions of violation of laws of moral turpitude.

4821  
4822 157.13 Proposed Rule Language – Fixed Wing Operations  
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- 4824 (m) The AMP will be assessed as a part of the licensure process in demonstrating program
- 4825 components and compliance with law.
- 4826 (1) Failure to address any of the following program components shall be considered a
- 4827 Critical Failure and result in loss of, or denial of, licensure:
- 4828 (A) Program for credentialing of providers
- 4829 (B) Program for Professional development
- 4830 (C) Protocols or Standards of Care
- 4831 (D) Established Operational Standards
- 4832 (E) Administrative Oversight
- 4833 (F) Communications Center
- 4834 (G) Base or Facility Standards

- 4835 (H) Program for Safety Standards
- 4836 (I) Program for Quality Improvement
- 4837 (J) Established Committees
- 4838 (K) Medical Direction

4839 (2) Convictions of any of the following:

- 4840 (A) Violations of law regulating healthcare provider fraud, abuse, kickbacks.
- 4841 (B) Management/Operator convictions of violation of laws of moral turpitude.

4842

4843 As an AMP establishing a program or renewing a program’s license there are a defined  
4844 set of responsibilities and accountabilities to ensure. AMP’s are encouraged and  
4845 expected to develop their own approach to meeting or exceeding requirements laid out in  
4846 this document and the set of rules that this document supports. In developing and  
4847 adapting approaches to accomplishing the licensure process an AMP cannot lose sight  
4848 that there are certain elements of clinical, aviation and business operations that will be  
4849 absolute. Failure to address these components of an AMP’s program will result in  
4850 “Critical Failure” assessments and subsequent loss of a current license or failure to  
4851 complete a new applicant process.

4852 These critical failures are based on fundamental components as assessed by industry  
4853 regulatory requirements and/or best practices, or violations of law.

4854 The following are considered Critical Failures:

- 4855 1. The AMP does not possess or contract through a Part 135 Air Carrier Certificate.
- 4856 2. The AMP does not operate aircraft that have current airworthiness certificates.
- 4857 3. The AMP does not have or demonstrate any of the following separate programs:
  - 4858 a. Credentialing of providers
  - 4859 b. Professional development
  - 4860 c. Protocol or Standards of Care
  - 4861 d. Established Operational Standards
  - 4862 e. Administrative Oversight
  - 4863 f. Communications Center

- 4864 g. Base or Facility Standards
- 4865 h. Safety Standards
- 4866 i. Quality Improvement
- 4867 j. Established Committees
- 4868 k. Medical Direction
- 4869 4. Convictions of violations of law regulating healthcare provider fraud, abuse,  
4870 kickbacks.
- 4871 5. Management/Operator convictions of violation of laws of moral turpitude.
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## APPENDIX A

### TABLE OF ABBREVIATIONS AND DEFINITIONS

Word/Phrase	Abbreviation	Definition
Air Medical Community	AMC	The spectrum of all types of provider of air medical services. Includes but is not limited to rotor and fixed wing aircraft, and governmental, not-for-profit and profit based companies.
Air Medical Provider	AMP	The individual organization that provides air medical service through the utilization of aircraft and medical personnel. The holder of the state air medical license and the applicant for Medicare and Medicaid provider numbers as a state licensed air medical provider. A person who operates/leases a fixed-wing or rotor-wing air ambulance aircraft, equipped and staffed to provide a medical care environment on-board appropriate to the patient's needs. The term air ambulance provider is not synonymous with and does not refer to the Federal Aviation Administration (FAA) air carrier certificate holder unless they also maintain and control the medical aspects that are consistent with EMS provider licensure.
Air Medical Resource Management	AMRM	An application of aviation Crew Resource Management, AMRM addresses the challenge of optimizing the human/machine interface and related interpersonal issues, with maximum focus on communication skills and team building curricula. These issues include effective teambuilding, information transfer through communications, problem solving, decision-making, maintaining situational awareness, and establishing an operational environment conducive to optimal human performance even in challenging situations. <a href="http://www.airweb.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/b643be7ddea4b3af8625708c006529fc/\$FILE/AC00-64.pdf">http://www.airweb.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/b643be7ddea4b3af8625708c006529fc/\$FILE/AC00-64.pdf</a>
Air Traffic Control	ATC	Air traffic control (ATC) is a service provided by ground-based controllers who direct aircraft on the ground and in the air, provided under the guidance and regulation of the FAA.
Aircraft Evacuation Procedures		The AMP's procedures that refer to emergency evacuation from an aircraft which may take place on the ground, in water, or mid-flight. There are standard evacuation procedures and special evacuation equipment.
Aircraft Maintenance Sterility		The AMP's procedures to ensure that aircraft maintenance is not interrupted, or when interrupted requires the reset or restart of the entire maintenance process to ensure accurate and complete maintenance.
Aircraft/Ambulance		The equipment and modification of an aircraft to undertake the air

<b>Configuration</b>		<b>ambulance mission, under the regulation of the FAA's requirements.</b>
<b>Airframe</b>		<b>The term airframe refers to the mechanical structure of an aircraft, and as generally used does not include the propulsion system.</b>
<b>All Personnel</b>		<b>All individuals of all disciplines employed by an AMP.</b>
<b>AMP Medical Director</b>	<b>AMD</b>	<b>The physician responsible for the provision of medical care by the AMP. Supervises protocols, medical crew training, selection of medical equipment, establishment of treatment requirements and medications, is the medically responsible individual for the AMP.</b>
<b>Association of Air Medical Services</b>	<b>AAMS</b>	<b>The international trade association representing the air medical and critical care ground industry. Based in Alexandria, VA, <a href="http://www.aams.org">www.aams.org</a></b>
<b>Aviation Operations</b>		<b>Operations of the AMP that are directly related to or required by the operating of an aircraft.</b>
<b>Backup Emergency Power Source</b>		<b>Emergency power systems are a type of system, which may include lighting, generators, fuel cells and other apparatus, to provide backup power resources in a crisis or when regular systems fail.</b>
<b>Biohazard</b>		<b>A biological hazard or biohazard is an organism, or substance derived from an organism, that poses a threat to (primarily) human health.</b>
<b>Briefing</b>		<b>The act or instance of giving precise instructions or essential information, communicating amongst the team assigned to a task or project.</b>
<b>Bureau of Narcotics Enforcement</b>	<b>BNE</b>	<b>A division of the TX Department of Public Safety. The Texas Prescription Program was created by the Texas Legislature in 1982 to monitor Schedule II controlled substance prescriptions. Effective September 1, 2008, the Texas Legislature expanded the Program to include the monitoring of Schedule III through Schedule V controlled substance prescriptions.</b>
<b>Centers for Medicare and Medicaid Services</b>	<b>CMS</b>	<b>The Centers for Medicare and Medicaid Services (CMS), previously known as the Health Care Financing Administration (HCFA), is a federal agency within the United States Department of Health and Human Services (DHHS) that administers the Medicare program and works in partnership with state governments to administer Medicaid, the State Children's Health Insurance Program (SCHIP), and health insurance portability standards. In addition to these programs, CMS has other responsibilities, including the administrative simplification standards from the Health Insurance Portability and Accountability Act of 1996 (HIPAA), quality standards in long-term care facilities (more commonly referred to as nursing homes) through its survey and certification process, and clinical laboratory quality standards under the Clinical Laboratory Improvement Amendments.</b>
<b>Centigrade</b>		<b>relating to, conforming to, or having the international thermometric scale on which the interval between the triple point of water and the boiling point of water is divided into 99.99 degrees with 0.01°</b>

		representing the triple point and 100° the boiling point <10° Celsius>
Certified Flight Communicator	CFC	The Certified Flight Communicator has successfully completed a 2-day class designed for communication specialists in the Air Medical field. Topics covered include Flight Following and Navigation, Map Reading skills, Aviation weather, PAIP, Stress Management, Public Relations, and Medical Terminology. Following successful completion of the exam, status as a Certified Flight Communicator is earned.
Circadian Rhythm		being, having, characterized by, or occurring in approximately 24-hour periods or cycles (as of biological activity or function) <circadian rhythms in activity>
Clinical Care Provider		
Clinical Competencies		The body of experiences, education, skills testing and oversight by the AMD that establishes the parameters of the provision of healthcare by the AMP's clinical personnel.
Clinical Practice		The practice of healthcare by the AMP's clinical personnel under the oversight of the AMD.
Commission on Accreditation of Medical transport Systems	CAMTS	The Commission on Accreditation of Medical Transport Systems (CAMTS) (pronounced CAMTS), is an independent, non-profit agency which audits and accredits fixed-wing and rotary wing air medical transport services as well as ground inter-facility critical care services in the U.S. to a set of industry-established criteria.
Communication Committee	CC	The Committee of the <del>TAP</del> AMP -that is responsible for monitoring compliance with the protocols, phone etiquette, and compliance with weather reporting turndowns, EMResource (EMSystems) updates and daily briefing.
Communications Center		A center for the receipt and relay of requests for the services of an AMP. Maintains such documents as required and is equipped as required to communicate within the mission profile of the AMP.
Communications Specialist		A person trained to undertake emergency medical dispatch and to provide flight following services for an AMP I in accordance with a minimum of NAACS standards.
Comprehensive Clinical Management Program	CCMP	The designation by the Department of State Health Services which designates an emergency medical services provider as meeting the current "Comprehensive Clinical Management Program Criteria" and actively participates on the appropriate RAC and submits data to the Texas EMS/Trauma Registry.
Continuing Education	CE	The required amount of annual, biannual training established by a particular credentialing, licensing or accrediting entity. Maybe characterized as an all encompassing term within a broad spectrum of post-secondary learning activities and programs. Recognized forms of post-secondary learning activities within the domain include: degree credit courses by non-traditional students, non-degree career training, workforce training, formal personal enrichment courses (both on-campus and online) self-directed

		<p>learning (such as through Internet interest groups, clubs or personal research activities) and experiential learning as applied to problem solving.</p>
<p><b>Continuous Improvement</b></p>		<p>Continuous Improvement Process (CIP, or CI) is a management process whereby delivery (customer valued) processes are constantly evaluated and improved in the light of their efficiency, effectiveness and flexibility.</p>
<p><b>Credentialing</b></p>		<p>Credentialing is the process of establishing the qualifications of licensed professionals, organizational members or organizations, and assessing their background and legitimacy.</p>
<p><b>Crew Resource Management</b></p>	<p><b>CRM</b></p>	<p>Crew (or Cockpit) Resource Management (CRM) training originated from a NASA workshop in 1979 that focused on improving air safety. The NASA research presented at this meeting found that the primary cause of the majority of aviation accidents was human error, and that the main problems were failures of interpersonal communication, leadership, and decision making in the cockpit. CRM training encompasses a wide range of knowledge, skills and attitudes including communications, situational awareness, problem solving, decision making, and teamwork; together with all the attendant sub-disciplines which each of these areas entails. CRM can be defined as a management system which makes optimum use of all available resources - equipment, procedures and people - to promote safety and enhance the efficiency of flight operations.</p> <p>CRM is concerned not so much with the technical knowledge and skills required to fly and operate an aircraft but rather with the cognitive and interpersonal skills needed to manage the flight within an organized aviation system. In this context, cognitive skills are defined as the mental processes used for gaining and maintaining situational awareness, for solving problems and for making decisions. Interpersonal skills are regarded as communications and a range of behavioral activities associated with teamwork. In aviation, as in other walks of life, these skill areas often overlap with each other, and they also overlap with the required technical skills. Furthermore, they are not confined to multi-crew aircraft, but also relate to single pilot operations, which invariably need to interface with other aircraft and with various ground support agencies in order to complete their missions successfully.</p> <p>CRM training for crew has been introduced and developed by aviation organizations including major airlines and military aviation worldwide. CRM training is now a mandated requirement for commercial pilots working under most regulatory bodies worldwide, including the FAA (U.S.) and JAA (Europe). Following the lead of the commercial airline industry, the U.S. Department of Defense began</p>

		formally training its air crews in CRM in the early 1990s. Presently, the U.S. Air Force requires all air crew members to receive annual CRM training, in an effort to reduce to human-error caused mishaps.
Crew Rest		The FAA requirements of an air carrier certificate holder as to the duty time limitations and rest requirements. These may be found in F.A.R. Part 135.263 through .273.
Critical Failure		The point in which <a href="#">Accreditation Licensure</a> and subsequent Texas State Provider Licensure cannot be issued.
Customer Service Committee	CSC	The Committee of the <a href="#">TAPAMP</a> that is responsible for monitoring how the AMP is meeting the expectations of patients and the constituency they serve and for providing monitoring and documentation that it participates in outside committees in the state.
Debriefing		The process, structured or not structured of carefully reviewing an event.
Degrees of elevation		Measuring the height to which the torso supporting area of a stretcher or other patient transporting device is elevated.
Department of Health and Human Services	HHS	The United States Department of Health and Human Services (HHS), is a Cabinet department of the United States government with the goal of protecting the health of all Americans and providing essential human services.
Didactic		A didactic method (Greek: didáskein, to teach; lore of teaching) is a teaching method that follows a consistent scientific approach or educational style to engage the student’s mind.
Disaster		A disaster is the tragedy of a natural or human-made hazard (a hazard is a situation which poses a level of threat to life, health, property, or environment) that negatively affects society or environment.
Disciplines		A specific branch of knowledge or learning that defines a profession.
Duty Status		The status of individual personnel's ability to undertake an assignment to work.
Education Committee	EC	The <a href="#">TAPAMP</a> committee responsible for recommending, developing, and implementing professional development programs for the AMP and staff.
Emergency Care Attendant	ECA	An individual who is certified by DSHS as minimally proficient to provide emergency prehospital care by providing initial aid that promotes comfort and avoids aggravation of an injury or illness.
Emergency Locator transmitter	ELT	Distress radio beacons, also known as emergency beacons, are tracking transmitters which aid in the detection and location of boats, aircraft, and people in distress. Strictly, they are radio beacons that interface with Cospas-Sarsat, the international satellite system for search and rescue (SAR). When activated, such beacons send out a distress signal that, when detected by non-geostationary satellites, can be located by triangulation.[citation needed] In the case of 406 MHz beacons which transmit digital

		signals, the beacons can be uniquely identified almost instantly (via GEOSAR), and furthermore, a GPS position can be encoded into the signal (thus providing both instantaneous identification and position). Often using the initial position provided via the satellite system, the distress signals from the beacons can be homed by SAR aircraft and ground search parties who can in turn come to the aid of the concerned boat, aircraft, or people.
Emergency Medical Dispatcher	EMD	A trained communicator designated by certification through the NAAD to provide emergency call taking, ambulance communications and other duties required to accurately and expeditiously process requests for emergency medical services.
Emergency Medical Report	EMR	The documentation of all the activities involved by the AMP in the treatment of a patient.
Emergency Medical Technician	EMT	An individual who is certified by the department as minimally proficient to perform emergency prehospital care that is necessary for basic life support and that includes the control of hemorrhaging and cardiopulmonary resuscitation.
Emergency Medical Technician - Intermediate	EMT-I	An individual who is certified by the department as minimally proficient in performing skills required to provide emergency prehospital or interfacility care by initiating and maintaining under medical supervision certain procedures, including intravenous therapy and endotracheal or esophageal intubation or both.
Emergency Medical Technician - Paramedic	EMT-P	An individual who is certified by the department as minimally proficient to provide emergency prehospital or interfacility care by providing advanced life support that includes initiation and maintenance under medical supervision of certain procedures, including intravenous therapy, endotracheal or esophageal intubation or both, electrical cardiac defibrillation or cardioversion, and drug therapy.
Emergency Shutdown		The procedure by which the AMP establishes the method to shut off the operating engines of an aircraft without regard to damage to the engines.
EMS Rule		Emergency Medical Services Act, Health and Safety Code, Chapter 773.
Established Program		An Air Ambulance Provider, Air Medical Service, that is already licensed to provide air medical services within the State of Texas or within any contiguous state such that they are or could be licensed in the State of Texas.
Estimated Time of Arrival	ETA	Estimated time of arrival.
Exposure Control Plan		The AMP's plan to prevent exposure to hazardous substances as required by OSHA.
Fahrenheit	F	Relating or conforming to a thermometric scale on which under standard atmospheric pressure the boiling point of water is at 212 degrees above the zero of the scale, the freezing point is at 32 degrees above zero, and the zero point approximates the

		temperature produced by mixing equal quantities by weight of snow and common salt —abbreviation F
Federal Aviation Administration	FAA	The Federal Aviation Administration (FAA) is an agency of the United States Department of Transportation with authority to regulate and oversee all aspects of civil aviation in the U.S. The Federal Aviation Act of 1958 created the group under the name "Federal Aviation Agency", and adopted its current name in 1967 when it became a part of the United States Department of Transportation.
Federal Aviation Regulations	FAR	The body of regulations established by the Federal Aviation Administration in order to regulate aviation and air carriers within the United States.
Federal Communications Commission	FCC	The Federal Communications Commission (FCC) is an independent agency of the United States government, created, directed, and empowered by Congressional statute (see 47 U.S.C. § 151 and 47 U.S.C. § 154), and with the majority of its commissioners appointed by the current President. The FCC works towards six strategic goals in the areas of broadband, competition, the spectrum, the media, public safety and homeland security, and modernizing the FCC
First Responder		Individuals or entities that provide initial response and are typically certified by the department as minimally proficient to provide emergency prehospital care by providing initial aid that promotes comfort and avoids aggravation of an injury or illness.
Fixed Wing	FW	a powered heavier-than-air aircraft with fixed wings from which it derives most of its lift
Flight Plan		Flight plans are documents filed by pilots or a Flight Dispatcher with the local Civil Aviation Authority (e.g. FAA in the USA) prior to departure. They generally include basic information such as departure and arrival points, estimated time en route, alternate airports in case of bad weather, type of flight (whether instrument flight rules or visual flight rules), pilot's name and number of people on board. In most countries, flight plans are required for flights under IFR. Under VFR, they are optional unless crossing national borders, however they are highly recommended, especially when flying over inhospitable areas, such as water, as they provide a way of alerting rescuers if the flight is overdue.
Foot		any of various units of length based on the length of the human foot; especially : a unit equal to 1/3 yard and comprising 12 inches
Foreign Object Damage	FOD	Foreign Object Damage or Foreign Object Debris (FOD) is a substance, debris or article alien to a vehicle or system that has potential to cause damage.[1] Foreign Object Damage is any damage attributed to a foreign object that can be expressed in physical or economic terms that may or may not degrade the product's required safety and/or performance characteristics. Typically, FOD is an aviation term used to describe both the damage done to aircraft by foreign objects, and the foreign objects

		themselves (i.e. any object that has, or is likely to, cause damage.)
<b>Hazardous Materials</b>		Dangerous goods, also called hazardous materials ("HazMats"), are solids, liquids, or gases that can harm people, other living organisms, property, or the environment. They are often subject to chemical regulations. Dangerous goods include materials that are radioactive, flammable, explosive or corrosive, oxidizers or asphyxiates, biohazardous, toxic, pathogen or allergen substances and organisms, but also physical conditions as compressed gases and liquids or hot material, including all goods containing such materials or chemicals, or may have other characteristics that render it hazardous in specific circumstances. Response to or transport of Hazardous Materials in rotor and fixed wing aircraft will require special considerations in treatment, packaging and consulting of the F.A.R.s as to whether and how materials may be transported.
<b>health care system</b>		Health care systems are designed to meet the health care needs of target populations. There are a wide variety of health care systems around the world. In some countries, the health care system has evolved and has not been planned, whereas in others a concerted effort has been made by governments, trade unions, charities, religious, or other co-ordinated bodies to deliver planned health care services targeted to the populations they serve. However, health care planning has often been evolutionary rather than revolutionary.
<b>Hot Refueling</b>		The process of transferring fuel from a fixed station or mobile tanker into an aircraft while the engine(s) are operating. Will require specific policies, procedures and use of safety systems and techniques to accomplish within an AMP's SMS requirements.
<b>Independent Duty</b>		Assignment to duty as a part of an AMP provider team without supervision as a new employee or a reintegrating employee by preceptors or oversight.
<b>Inhaled Gases</b>		Inhaling a fluid (such as air) that has neither independent shape nor volume but tends to expand indefinitely, maybe a combustible gas or gaseous mixture used to produce anesthesia or a substance that can be used to produce a poisonous, asphyxiating, or irritant atmosphere.
<b>Instrument Flight Rules</b>	IFR	Instrument flight rules (IFR) are regulations and procedures for flying aircraft by referring only to the aircraft instrument panel for navigation. Even if nothing can be seen outside the cockpit windows, an IFR-rated pilot can fly while looking only at the instrument panel. An IFR-rated pilot can also be authorized to fly through clouds, using Air Traffic Control procedures designed to maintain separation from other aircraft. Training is normally done in simulated IFR conditions with training aids such as blockalls to help a pilot concentrate only on the instrument panel.
<b>Inter-rater reliability</b>		Inter-rater reliability, inter-rater agreement, or concordance is the

		degree of agreement among raters. It gives a score of how much homogeneity, or consensus, there is in the ratings given by judges. It is useful in refining the tools given to human judges, for example by determining if a particular scale is appropriate for measuring a particular variable. If various raters do not agree, either the scale is defective or the raters need to be re-trained.
Isolette		A self contained transport device used for an incubator for premature infants that provides controlled temperature and humidity and an oxygen supply.
Job Description		A job description is a list of the general tasks, or functions, and responsibilities of a position. Typically, it also includes to whom the position reports, specifications such as the qualifications needed by the person in the job, salary range for the position, etc. A job description is usually developed by conducting a job analysis, which includes examining the tasks and sequences of tasks necessary to perform the job. The analysis looks at the areas of knowledge and skills needed by the job. Note that a role is the set of responsibilities or expected results associated with a job. A job usually includes several roles.
Just Culture		On one side of the coin, it is about creating a reporting environment where staff can raise their hand when they have seen a risk or made a mistake. It is a culture that rewards reporting and puts a high value on open communication—where risks are openly discussed between managers and staff. It is a culture hungry for knowledge. On the other side of the coin, it is about having a well-established system of accountability. A Just Culture must recognize that while we as humans are fallible, we do generally have control of our behavioral choices, whether we are an executive, a manager, or a staff member. Just Culture flourishes in an organization that understands the concept of shared accountability—that good system design and good behavioral choices of staff together produce good results. It has to be both." Marx D, Comden SC, Sexhus Z. Our inaugural issue—in recognition of a growing community. The Just Culture Community News and Views. Nov/Dec 2005;1:1.
Kilograms		the base unit of mass in the International System of Units that is equal to the mass of a prototype agreed upon by international convention and that is nearly equal to the mass of 1000 cubic centimeters of water at the temperature of its maximum density
Labor Union		A trade union (or labor union) is an organization of workers who have banded together to achieve common goals in key areas and working conditions. The trade union, through its leadership, bargains with the employer on behalf of union members (rank and file members) and negotiates labor contracts (Collective bargaining) with employers. This may include the negotiation of wages, work rules, complaint procedures, rules governing hiring, firing and

		promotion of workers, benefits, workplace safety and policies. The agreements negotiated by the union leaders are binding on the rank and file members and the employer and in some cases on other non-member workers. These organizations may comprise individual workers, professionals, past workers, or the unemployed. The most common, but by no means only, purpose of these organizations is "maintaining or improving the conditions of their employment".
Landing Zone	LZ	A Landing Zone or "LZ" is a military term for any area where aircraft land. For civilian aviation operations, refers to any unprepared area that is utilized for individual landings as required for transport of persons or materials.
Law Enforcement Agency	LEA	In North American English, a Law enforcement agency (LEA) is an organization that enforces the law. Is typically empowered by state or federal statute to enforce laws within certain geopolitical boundaries or for certain classes of laws.
<a href="#">Licensure</a>		<a href="#">Process through which an AMP may become licensed as an AMP.</a>
Loop Closure		the process by which an event or occurrence investigation completes the feedback loop and concludes with results and improvement processes.
Maintain Documentation		the requirement to preserve documentation within the parameters established by the DSHS or other authorities.
Maintenance Sterile Environment		The creation of an environment in which aviation maintenance can be undertaken without risk of interference from telephone calls, human interaction, or other extraneous factors which would increase the chance of a human factor mistake in the process of aviation maintenance.
Medical Oxygen		An inhaled liquid that has been processed and refined to a level of purity so as to be used as a prescription medication as outlined by the Food and Drug Administration of the Federal Government.
Mission Profile		The description of the tasks that an AMP undertakes in the completion of requests for air medical transportation.
Mission Specific Education		A process of education that encompasses all of the requirements identified to be necessary to educate the AMP individual provider in the defined mission as approved by the AMD
Nation Fire Protection Association	NFPA	The National Fire Protection Association (NFPA) is a U.S. organization (albeit with some international members) charged with creating and maintaining minimum standards and requirements for fire prevention and suppression activities, training, and equipment, as well as other life-safety codes and standards. This includes everything from building codes to the personal protective equipment utilized by firefighters while extinguishing a blaze.
National Association of Air Medical Communication Specialists	NAACS	A not-for-profit professional organization whose mission is to represent the air medical communication specialist on a national level through education, standardization and recognition. Www.naacs.org

National Registry		President Lyndon Johnson's Committee on Highway Traffic Safety recommended the creation of a national certification agency to establish uniform standards for training and examination of personnel active in the delivery of emergency ambulance service. The result of this recommendation was the inception of the National Registry of Emergency Medical Technicians (NREMT) in 1970. The NREMT accomplishes this goal by developing standards for competent EMS practice and measuring individuals against that standard. The NREMT works in cooperation with state EMS officials, who issue licenses to EMS professionals.
New Applicant		An entity that is undertaking to apply for the first time for a survey through the submission of a <a href="#">TAP Licensure</a> application.
NIMS		The National Incident Management System (NIMS) is a system used in the United States to coordinate emergency preparedness and incident management among various federal, state, and local agencies. The National Incident Management System (NIMS) is a structured framework used nationwide for both governmental and nongovernmental agencies to respond to natural disasters and or terrorist attacks at the local, state, and federal levels of government. See <a href="http://www.dhs.gov/dhspublic/interapp/editorial/editorial_0566.xml">www.dhs.gov/dhspublic/interapp/editorial/editorial_0566.xml</a>
Notices to Airmen	NOTAM	NOTAM or NoTAM is the quasi-acronym for a "Notice To Airmen". NOTAMs are created and transmitted by government agencies under guidelines specified by Annex 15: Aeronautical Information Services of the Convention on International Civil Aviation. A NOTAM is filed with an aviation authority to alert aircraft pilots of any hazards en route or at a specific location.
Operational Control		The requirement of the FAA of a Part 135 Certificate Holder to have a defined process under A008 to have actual control of the fitness and preparedness of the aircraft, pilot and ability to conduct flights.
Organizational Chart		An organizational chart (often called organization chart, organigram(me), or organogram(me)) is a diagram that shows the structure of an organization and the relationships and relative ranks of its parts and positions/jobs. The term is also used for similar diagrams, for example ones showing the different elements of a field of knowledge or a group of languages.
Part 135	Part 135	FARs are part of Title 14 of the Code of Federal Regulations (CFR). Part 135 – Operating Requirements: Commuter and On Demand Operations and Rules Governing Persons on Board Such Aircraft. For pilots, there is an important distinction in the parts that address classes of flight. These parts do not distinguish type of aircraft, but rather type of activity done with the aircraft. Regulations for commuter and commercial aviation are far more intensive than those for general aviation, and specific training is required.
Performance Measurement		Performance measurement is the process whereby an organization establishes the parameters within which programs, investments,

		and acquisitions are reaching the desired results.
Periodic Review		Once in a licensure cycle
Personal Protective Equipment		Personal protective equipment (PPE) refers to protective clothing, helmets, goggles, or other garment designed to protect the wearer's body or clothing from injury by blunt impacts, electrical hazards, heat, chemicals, and infection, for job-related occupational safety and health purposes, and in sports, martial arts, combat, etc. body armor is combat-specialized protective gear. In British legislation the term PPE does not cover items such as armor. The terms "protective gear" and "protective clothing" are in many cases interchangeable; "protective clothing" is applied to traditional categories of clothing, and "gear" is a more general term and preferably means uniquely protective categories, such as pads, guards, shields, masks, etc. PPE can also be used to protect the working environment from pesticide application, pollution or infection from the worker (for example in a microchip factory). The protection may be important in both ways, as with the use of disposable gloves by surgeons and dentists.
Policy Manual		The resource book or body of material that details an AMP's policies, expectations, procedures, requirements and guidelines for operations and employees.
Post Accident Incident Plan	PAIP	The incident management plan by which an AMP prepares to manage any occurrence that is unexpected or causes damage or injury to the AMP's personnel and property.
Post Flight		A debriefing that reviews the activities of a flight. May be a physical inspection of the aircraft and equipment involved in a flight.
Pounds		any of various units of mass and weight: as a: a unit of troy weight equal to 12 troy ounces or 5760 grains or 0.3732417216 kilogram formerly used in weighing gold, silver, and a few other costly materials—called also troy pound.
Pre Flight		A briefing prior to the commencement of an aircraft flight. May be a physical inspection of the aircraft and equipment to be used in a flight.
Preceptor		An AMP team member assigned to uphold a level of education and skills attainment for new employees.
Product Review Committee	PRC	The <del>TAPAMP</del> committee responsible for reviewing and recommending the incorporation of new products for use by the AMP, maybe an adhoc committee.
Professional Development Programs		The AMP's program that supports the individual provider's professional competencies, knowledge and skills development under the oversight of the AMD.
Program		The Air Medical Provider licensed in the State of Texas.
Program Competencies		The set of competencies required of individual providers employed by the AMP in order to provide the program's mission under the oversight of the AMD.

Program Director		The individual responsible for the operations and direction of the AMP.
Program Information Form		The application for -a prospective <a href="#">TAPAMP</a> , to be filed by the new applicant.
Protocol		The set of guidelines and written descriptions as approved by the AMP Medical Director that describes and proscribes the treatment provided to a patient by the AMP. “protocol” will be used synonymously with the terms patient care guidelines, standing delegated orders, standing orders, and local standard of care.
Protocol Development Review Committee	PDRC	The <a href="#">TAPAMP</a> committee responsible for regularly reviewing and recommending practice changes based on current literature, QI reports and trend analysis and other sources to the AMP Medical Director in order to regularly update the AMP's Protocol.
Provisional License		A temporary license issued to an AMP that allows the AAMP to operate within certain parameters.
Public Information & Outreach Committee	PIOC	The <a href="#">TAPAMP</a> committee responsible for outreach programs designed to raise awareness and promote the health and safety of the community.
Quality Improvement		There are many methods for quality improvement. These cover product improvement, process improvement and people based improvement. as a part of Quality management can be considered to have three main components: quality control, quality assurance and quality improvement. Quality management is focused not only on product quality, but also the means to achieve it. Quality management therefore uses quality assurance and control of processes as well as products to achieve more consistent quality.
Quality Improvement Committee	QIC	The <a href="#">TAPAMP</a> committee responsible for reviewing clinical care and recommend improvement strategies.
Record		Webster's: to set down in writing; to register permanently by mechanical means
Record retention		The ISO 15489: 2001 standard defines records management as "The field of management responsible for the efficient and systematic control of the creation, receipt, maintenance, use and disposition of records, including the processes for capturing and maintaining evidence of and information about business activities and transactions in the form of records". The ISO defines records as "information created, received, and maintained as evidence and information by an organization or person, in pursuance of legal obligations or in the transaction of business". The International Council on Archives (ICA) Committee on Electronic Records defines a record as "recorded information produced or received in the initiation, conduct or completion of an institutional or individual activity and that comprises content, context and structure sufficient to provide evidence of the activity." The key word in these definitions is evidence. Put simply, a record can be defined as "evidence of an event"

Reeducation		The process of educating personnel as a repetitive step in repeating education which has already been accomplished but not completed or required to be repeated by the AMD.
Reintegration		The process of repeating an integration of personnel into the primary system of patient care under the oversight of the AMD.
remediation		The process of mediating a provider in clinical provider proficiency as defined by the AMD.
Risk Management		Risk management is the identification, assessment, and prioritization of risks followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events
Role		Is not Bread
Rotor Wing	RW	A rotorcraft is a powered heavier-than-air flying machine that uses lift generated by wings, called rotor blades that revolve around a mast. Several rotor blades mounted to a single mast are referred to as a rotor.
Safety Management Systems Committee	SMSC	A safety management systems committee that is designed to review workplace practices and offer suggestion and/or policies that promote a safer work environment.
Scene Management		An established process in incident management for all the separate providers of rescue services to accomplish in a coordinated manner their responsibilities in providing aid at the scene of an incident.
Self Assessment		A process which a New Applicant undertakes in order to ascertain the entities fitness for application to undertake and successfully complete the <a href="#">TAP Licensure Process</a> .
Single Pilot Instrument Flight Rule	SPIFR	An aircraft that is- equipped and type-certified for instrument flight under the control of a single pilot, and the related navigational equipment must have been inspected within a specific period of time prior to the instrument flight.
Site Survey		The process which an applicant for the <a href="#">TAP Licensure Process</a> undertakes to be reviewed by designated site surveyors in order to ascertain compliance with the PIF and the application for licensure as an AMP.
Site Survey Team		The team which is assigned to undertake the process of reviewing an applicant for the <a href="#">TAPAMP</a> to ascertain compliance with the PIF and the application for licensure as an AMP.
Site Surveyor		The individual who is qualified and trained to be a part of a Site Survey team.
Site Visit		The period of time when a site survey team visits and reviews the AMP's application for licensure.
Specialty Transport		the transport of teams and equipment trained and ready for unique medical transportation challenges, such as neonatal patients, high risk cardiac patients with extracorporeal devices, and others.
Standard Operating Procedure	SOP	An SOP is a written document / instruction detailing all steps and activities of a process or procedure. These should be carried out

		without any deviation or modification to guarantee the expected outcome. A standard operating procedure is a set of instructions having the force of a directive, covering those features of operations that lend themselves to a definite or standardized procedure without loss of effectiveness.
Sterile Cockpit Rule		The Sterile Cockpit Rule is an FAA regulation requiring pilots to refrain from non-essential activities during critical phases of flight, normally below 10,000 feet.
Survival Training		training in order to provide the AMP personnel with survival skills which are techniques a person may use for an indefinite duration to survive a dangerous situation (also see bushcraft). Generally speaking, these techniques are meant to provide the basic necessities for human life: fire, water, food, shelter, habitat, and the need to think straight, to signal for help, to navigate safely, to avoid unpleasant interactions with animals and plants, and for first aid.
Texas Accreditation Process	TAP	<del>Process through which an AMP may accomplish State Accreditation to become licensed as an AMP.</del>
Texas Administrative Code	TAC	The Texas Administrative Code (TAC) is a compilation of all state agency rules in Texas. There are 16 titles in the TAC. Each title represents a subject category and related agencies are assigned to the appropriate title. <a href="http://www.sos.state.tx.us/tac/">www.sos.state.tx.us/tac/</a>
Tracking		The process undertaken by the CC to provide accurate knowledge for the AMP of the location and status of the AMP's aircraft.
Transport Request		The request by a source to transport an air medical patient.
Trending		The AMP's process statistical analysis of data to extrapolate trends.
Triage		A process of prioritizing patients based on the severity of their condition.
Trigger Criteria		Criteria that will begin a process of examination of specific data or processes.
TX Department of State Health Services	DSHS	One of five departments of the TX health and Human Services Commission.
TX DSHS EMS and Trauma Services	DSHS/EMS	A department of TX Department of State Health Services responsible for regulation and administration of EMS and Trauma services within the state of Texas. <a href="http://www.dshs.state.tx.us/emstraumasystems/default.shtm">http://www.dshs.state.tx.us/emstraumasystems/default.shtm</a>
TX Health and Human Services Commission	HHSC	The Texas health and human services system includes five agencies, which operate under the oversight of the Health and Human Services Commission. This consolidated organizational structure is enhancing delivery of services, improving efficiency and generating cost savings for Texas. The five health and human services agencies are: Health and Human Services Commission ; Department of Family and Protective Services ; Department of Assistive and Rehabilitative Services ; Department of Aging and Disability Services ; Department of State Health Services
TX Regional Advisory	RAC	A RAC is an organized group of healthcare entities and other

<p><b>Council</b></p>		<p>concerned citizens who have an interest in improving and organizing trauma care within a specified Trauma Service Area (TSA). RAC membership may include hospitals, physicians, nurses, EMS providers, rehabilitation facilities, dispatchers, as well as other community groups. The Omnibus Rural Health Care Rescue Act, passed in 1989, directed the Bureau of Emergency Management of the Texas Department of Health to develop and implement statewide emergency medical services (EMS) and trauma care system, designate trauma facilities, and develop a trauma registry to monitor the system and provide statewide cost and epidemiological statistics. The trauma system was initially adopted by the Texas Board of Health in accordance with Senate Bill 530, Health &amp; Safety Code, Chapter 773 (Emergency Medical Services), whereby the state was divided into twenty-two regions called Trauma Service Areas (Texas Administrative Code § Rule 157.122), provided for the formation of a Regional Advisory Council (Texas Administrative Code § Rule 157.123). In each area, a regional trauma system plan was developed and implemented, delineating the trauma facility designation process, and provided for the development of a state trauma registry. A Regional Advisory Council, an organization of healthcare entities and individuals such as hospitals, physicians, nurses, EMS providers and other individuals interested in trauma care and injury prevention thus provides a vital link in implementing the regional trauma system plan.</p>
<p><b>U.S. Department of Health and Human Services Office of the Inspector General</b></p>	<p>HHS/OIG</p>	<p>The United States Department of Health and Human Services (HHS), is a Cabinet department of the United States government with the goal of protecting the health of all Americans and providing essential human services. The Office of Inspector General (OIG) investigates criminal activity for HHS. The special agents who work for OIG have the same title series "1811", training and authority as other federal criminal investigators, such as the FBI, ATF, DEA and Secret Service. However, OIG Special Agents have special skills in investigating white collar crime related to Medicare and Medicaid fraud and abuse</p>
<p><b>US Department of Transportation</b></p>	<p>DOT</p>	<p>Oversees federal highway, air, railroad, and maritime and other transportation administration functions; components include the FAA, FHA, FRA, NHTSA, OIG, ...</p>
<p><b>Utilization review Process</b></p>		<p>An AMP's process of examining the requests for patient transports in order to identify requests for transport that are outside of critical care parameters.</p>
<p><b>Visual Flight Rule</b></p>	<p>VFR</p>	<p>Visual flight rules (VFR) are a set of regulations which allow a pilot to operate an aircraft in weather conditions generally clear enough to allow the pilot to see where the aircraft is going. Specifically, the weather must be better than Basic VFR Weather Minimums, as specified in the rules of the FAA.</p>
	<p>METAR</p>	<p>A METAR weather report is predominantly used by pilots in</p>

fulfillment of a part of a pre-flight weather briefing, and by meteorologists, who use aggregated METAR information to assist in weather forecasting. METAR reports typically come from airports or permanent weather observation stations. Reports are typically generated once an hour; if conditions change significantly, however, they can be updated in special reports called SPECIs. Some reports are encoded by automated airport weather stations located at airports, military bases, and other sites. Some locations still use augmented observations, which are recorded by digital sensors, encoded via software, and then reviewed by certified weather observers or forecasters prior to being transmitted. Observations may also be taken by trained observers or forecasters who manually observe and encode their observations prior to transmission.

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4879 [Appendix B](#)

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4881 [Planning and Preperation](#)

4882 [No extra material](#)

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4884 [Credentialing of Air Medical Providers](#)

4885 [BACKGROUND INVESTIGATION](#)

4886 [This portion of the process must include, at minimum, verification of TDSHS](#)  
4887 [certification, BNE licensure, NBRC licensure, and research into the candidate's criminal](#)  
4888 [history, work history, driving record, and administrative history with the Bureau of](#)  
4889 [Emergency Management.](#)

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4891 [PERSONALITY PROFILES](#)

4892 [Many industries, including the National Football League and law enforcement, perform](#)  
4893 [personality profiles on potential candidates. These evaluations can identify personality](#)  
4894 [traits that correlate with job satisfaction and overall successful performance in the](#)  
4895 [specific industry. Personality profiles are recommended but not required by State Rule.](#)

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4897 [Required Professional Development](#)

4898 [In larger systems or in Medical Control Systems, multiple instructors may be necessary to](#)  
4899 [reach all the employees of the agency. Because of this, the potential exists for](#)  
4900 [inconsistency in instructional delivery and the failure to meet the objections of the](#)  
4901 [program. Agencies should be able to demonstrate the methods used to promote](#)  
4902 [consistent delivery of the objectives and an evaluative process that monitors for potential](#)  
4903 [deviation. Methods to promote consistent delivery might include curriculum develop by](#)  
4904 [the instructional group, providing supporting materials for the curriculum, meetings of](#)  
4905 [the instructional staff to discuss the material, or having instructors attended session prior](#)  
4906 [to instructing.](#)

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4908 [Agencies should be able to document strengths in their training program and describe](#)  
4909 [how they overcome weaknesses. They should be able to document:](#)

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- 4911 [● credentials of their instructional staff](#)
- 4912 [● involvement of the medical director](#)
- 4913 [● correlation of quality review to educational objectives](#)
- 4914 [● correlation of prospective goals to educational objectives](#)
- 4915 [● meet the varying needs of the their staff](#)
- 4916 [● administrative support for professional development](#)
- 4917 [● appropriate methodology for the objectives offered](#)
- 4918 [● appropriate class size for the objectives offered](#)

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- [inter-rater reliability where appropriate](#)
- [method to evaluate long term impact of professional development activities](#)

[In addition to the quality improvement driven professional development needs addressed above, agencies must ensure that personnel remain credentialed in nationally endorsed courses \(or a determined equivalent\) such as, Advanced Cardiac Life Support, Advanced Trauma Life Support, and Pediatric Advanced Life Support. Some form of provider oriented CPR certification for Adult, Pediatric and Neonatal patient populations is required as well. The maintenance of these credentials shall be in addition to the professional development requirements outlined above.](#)

[The following is a required list of credentials by certification:](#)

	<a href="#">CPR</a>	<a href="#">Cardiac</a>	<a href="#">Trauma</a>	<a href="#">Pediatrics</a>	<a href="#">Neonatal</a>
<a href="#">EMT</a>	<a href="#">X</a>	-	<a href="#">X</a>	<a href="#">X</a>	-
<a href="#">Flight Nurse</a>	<a href="#">X</a>	<a href="#">X</a>	<a href="#">X</a>	<a href="#">X</a>	<a href="#">X</a>
<a href="#">Flight Paramedic</a>	<a href="#">X</a>	<a href="#">X</a>	<a href="#">X</a>	<a href="#">X</a>	<a href="#">X</a>
<a href="#">Physicians</a>	<a href="#">X</a>	<a href="#">X</a>	<a href="#">X</a>	<a href="#">X</a>	<a href="#">X</a>
<a href="#">Respiratory Therapists</a>	<a href="#">X</a>	<a href="#">X</a>	-	<a href="#">X</a>	<a href="#">X</a>

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[Documentation of programmatic strengths and performance improvement plan for weaknesses.](#)

[Flight nurses remain current on a nationally recognized and organized educational program for advanced cardiac, advanced trauma, advanced pediatric, and advanced neonatal treatment techniques.](#)

[Flight paramedics remain current on a nationally recognized and organized educational program for advanced cardiac, advanced trauma, advanced pediatric, and advanced neonatal treatment techniques.](#)

[Physicians remain current on a nationally recognized and organized educational program for advanced cardiac, advanced trauma, advanced pediatric, and advanced neonatal treatment techniques.](#)

4946  
4947 Respiratory Therapists remain current on a nationally recognized and organized  
4948 educational program for advanced cardiac, advanced pediatric, and advanced neonatal  
4949 treatment techniques.

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4951 A method for ensuring consistent instructional delivery across multiple instructors  
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4953 Administrative Oversight  
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4955  
4956 In the AAMS Membership Task Force meeting held in January 2008 (Kinkade, 2008),  
4957 the recommendation to refine the AAMS core values included the following:  
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- 4959 5. Commitment - Evidenced in behavior that:  
4960 • Places patient care before self-interest  
4961 • Celebrates common dedication to teamwork, compassion for patients, and  
4962 a passion for safety and quality care  
4963 6. Integrity - Evidenced in behavior that:  
4964 • Demonstrates commitment to high professional standards  
4965 • Promotes ethical behavior among all individuals involved in the work of  
4966 the association  
4967 7. Respect - Evidenced in behavior that:  
4968 • Honors the exchange of ideas  
4969 • Embraces diverse viewpoints  
4970 8. Responsibility - Evidenced in behavior that:  
4971 • Exemplifies transparent decision making  
4972 • Values honest communication and productive dialogue  
4973

4974 Business and clinical ethical standards can be drawn from many sources including the  
4975 following excerpts are taken from:

4976 COMPLETE GUIDE TO ETHICS MANAGEMENT: AN ETHICS TOOLKIT  
4977 FOR MANAGERS (MCNAMARA)  
4978

4979 ONE DESCRIPTION OF A HIGHLY ETHICAL ORGANIZATION  
4980

4981 Mark Pastin, in The Hard Problems of Management: Gaining the Ethics Edge  
4982 (Jossey-Bass, 1986), provides the following four principles for highly ethical  
4983 organizations:

- 4984 5. They are at ease interacting with diverse internal and external stakeholder groups.  
4985 The ground rules of these firms make the good of these stakeholder groups part of  
4986 the organizations' own good.

- 4987 6. They are obsessed with fairness. Their ground rules emphasize that the other  
4988 persons' interests count as much as their own.  
4989 7. Responsibility is individual rather than collective, with individuals assuming  
4990 personal responsibility for actions of the organization. These organizations'  
4991 ground rules mandate that individuals are responsible to themselves.  
4992 8. They see their activities in terms of purpose. This purpose is a way of operating  
4993 that members of the organization highly value. And purpose ties the organization  
4994 to its environment.  
4995

4996 Doug Wallace asserts the following characteristics of a high integrity organization:

- 4997 7. There exists a clear vision and picture of integrity throughout the organization.  
4998 8. The vision is owned and embodied by top management, over time.  
4999 9. The reward system is aligned with the vision of integrity.  
5000 10. Policies and practices of the organization are aligned with the vision; no mixed  
5001 messages.  
5002 11. It is understood that every significant management decision has ethical value  
5003 dimensions.  
5004 12. Everyone is expected to work through conflicting-stakeholder value perspectives.  
5005

5006 **ETHICS MANAGEMENT PROGRAMS: AN OVERVIEW**

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5007  
5008 About Ethics Management Programs Organizations can manage ethics in their  
5009 workplaces by establishing an ethics management program. Brian Schrag, Executive  
5010 Secretary of the Association for Practical and Professional Ethics, clarifies. "Typically,  
5011 ethics programs convey corporate values, often using codes and policies to guide  
5012 decisions and behavior, and can include extensive training and evaluating, depending on  
5013 the organization. They provide guidance in ethical dilemmas." Rarely are two programs  
5014 alike.  
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5016 **BENEFITS OF MANAGING ETHICS AS A PROGRAM**

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5017  
5018 There are numerous benefits in formally managing ethics as a program, rather than as a  
5019 one-shot effort when it appears to be needed. Ethics programs:

- 5020 • Establish organizational roles to manage ethics  
5021 • Schedule ongoing assessment of ethics requirements  
5022 • Establish required operating values and behaviors  
5023 • Align organizational behaviors with operating values  
5024 • Develop awareness and sensitivity to ethical issues  
5025 • Integrate ethical guidelines to decision making  
5026 • Structure mechanisms to resolving ethical dilemmas  
5027 • Facilitate ongoing evaluation and updates to the program  
5028 • Help convince employees that attention to ethics is not just a knee-jerk reaction  
5029 done to get out of trouble or improve public image

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## 8 GUIDELINES FOR MANAGING ETHICS IN THE WORKPLACE

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The following guidelines ensure the ethics management program is operated in a meaningful fashion:

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9. Recognize that managing ethics is a process. Ethics is a matter of values and associated behaviors. Values are discerned through the process of ongoing reflection. Therefore, ethics programs may seem more process-oriented than most management practices. Managers tend to be skeptical of process-oriented activities, and instead prefer processes focused on deliverables with measurements. However, experienced managers realize that the deliverables of standard management practices (planning, organizing, motivating, controlling) are only tangible representations of very process-oriented practices. For example, the process of strategic planning is much more important than the plan produced by the process. The same is true for ethics management. Ethics programs do produce deliverables, e.g., codes, policies and procedures, budget items, meeting minutes, authorization forms, newsletters, etc. However, the most important aspect from an ethics management program is the process of reflection and dialogue that produces these deliverables.

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10. The bottom line of an ethics program is accomplishing preferred behaviors in the workplace. As with any management practice, the most important outcome is behaviors preferred by the organization. The best of ethical values and intentions are relatively meaningless unless they generate fair and just behaviors in the workplace. That's why practices that generate lists of ethical values, or codes of ethics, must also generate policies, procedures and training that translate those values to appropriate behaviors.

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11. The best way to handle ethical dilemmas is to avoid their occurrence in the first place. That's why practices such as developing codes of ethics and codes of conduct are so important. Their development sensitizes employees to ethical considerations and minimizes the chances of unethical behavior occurring in the first place.

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12. Make ethics decisions in groups, and make decisions public, as appropriate. This usually produces better quality decisions by including diverse interests, perspectives, and increases the credibility of the decision process and outcome by reducing suspicion of unfair bias.

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13. Integrate ethics management with other management practices. When developing the values statement during strategic planning, include ethical values preferred in the workplace. When developing personnel policies, reflect on what ethical values you'd like to be most prominent in the organization's culture and then design policies to produce these behaviors.

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14. Use cross-functional teams when developing and implementing the ethics management program. It's vital that the organization's employees feel a sense of participation and ownership in the program if they are to adhere to its ethical values. Therefore, include employees in developing and operating the program.

- 5074 15. Value forgiveness. This may sound rather religious or preachy to some, but it's  
5075 probably the most important component of any management practice. An ethics  
5076 management program may at first actually increase the number of ethical issues to  
5077 be dealt with because people are more sensitive to their occurrence.  
5078 Consequently, there may be more occasions to address people's unethical  
5079 behavior. The most important ingredient for remaining ethical is trying to be  
5080 ethical. Therefore, help people recognize and address their mistakes and then  
5081 support them to continue to try operate ethically.
- 5082 16. Note that trying to operate ethically and making a few mistakes is better than not  
5083 trying at all. Some organizations have become widely known as operating in a  
5084 highly ethical manner, e.g., Ben and Jerry's, Johnson and Johnson, Aveda,  
5085 Hewlett Packard, etc. Unfortunately, it seems that when an organization achieves  
5086 this strong public image, it's placed on a pedestal by some business ethics writers.  
5087 All organizations are comprised of people and people are not perfect. However,  
5088 when a mistake is made by any of these organizations, the organization has a long  
5089 way to fall. In our increasingly critical society, these organizations are accused of  
5090 being hypocritical and they are soon pilloried by social critics. Consequently,  
5091 some leaders may fear sticking their necks out publicly to announce an ethics  
5092 management program. This is extremely unfortunate. It's the trying that counts  
5093 and brings peace of mind -- not achieving a heroic status in society.

#### 5094 SURVEY COORDINATOR

- 5095 • AMP must designate a Survey Coordinator who is responsible for the  
5096 administrative functions related to the AMPDedicate staff time sufficient to fulfill  
5097 the programmatic requirements of CCMP
- 5098 • Provide AMP organizational chart and describe the administrative reporting  
5099 structure of the Survey Coordinator
- 5100 • Document quality improvement experience and/or training sufficient to  
5101 implement and maintain standards

5102 Communications Center

5103

5104 To ensure role clarification it should be understood that communication for Air  
5105 Medical Service providers will be accomplished through "communication" centers, not to  
5106 be synonymous with an accredited FAA dispatch or ATC center. Communication  
5107 through these providers will be utilized to maintain contact with the medical personnel  
5108 for response ready status and/or patient coordination and communication of patient status  
5109 change.

#### 5110 SAFETY

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5112

5113 In an effort to ensure a well rested, alert individual, the specialist must have 8 hours of  
5114 uninterrupted rest time prior to scheduled shift. Personnel have the right to call a "time  
5115 out" and be granted a reasonable amount of rest time without retribution when working

5116 extended periods of time or periods high call volume. Policies must be in place to  
5117 demonstrate strategies to minimize fatigue related to duty time, length of shift, and  
5118 number of shifts worked per week. Relief personnel must be available for periodic  
5119 breaks. Seating and work stations that are ergonomically appropriate shall be provided  
5120 for each communication specialist on duty.

5121  
5122 A status display with information regarding pre-scheduled missions, maintenance  
5123 information, on duty team members, weather information should be prominently  
5124 displayed. Current local service maps and navigation charts, along with mapping  
5125 software must be available.

### 5127 PATIENT SECURITY

5128  
5129 Family members or other passengers that accompany patients must be properly identified  
5130 and listed by name (in compliance with HIPAA regulations) in the communications  
5131 center or by the transport coordinator

### 5132 5133 Base/Facility Standards

### 5134 MAINTENANCE FACILITIES FOR FW AND RW AIRCRAFT

5135  
5136 Aviation maintenance is a strictly regulated aspect of the operation of an AMP.  
5137 Maintenance is administered by the FAA which develops regulations, standards, policies  
5138 and procedures, letters, notices, orders, and Advisory Circulars (AC) through its Flight  
5139 Standards Services Air Carrier Maintenance Branch. An AMP should develop or require  
5140 that its maintenance standards include such matters as compliance with all Advisory  
5141 Orders (AO), Advisory Circulars and Advisory Directives (AD) to ensure that its aircraft  
5142 are maintained to the most current and highest standards. Maintenance standards are also  
5143 critical in the use of and accessibility of the proper parts and equipment, the FARs will  
5144 instruct and require that certain tools and parts be maintained, calibrated and stored in  
5145 particular manners prescribe to ensure safety.

5146 A maintenance work environment is much more than an aircraft “garage.” Support of and  
5147 requiring that maintenance work areas be well lit, clean and accessible, have adequate  
5148 ventilation, adequate storage for tools and parts, comply with OSHA and NFPA standards  
5149 and are heated and protected from weather will establish the AMP’s concern for high  
5150 standards of maintenance to enhance safety. Of particular concern is supporting the  
5151 human endeavor of the maintenance enterprise. AMPs should consult the FAA’s  
5152 Maintenance Human Factors website for a large volume of information to assist in

5153 designing systems, policies and processes to support the maintenance effort and the  
5154 maintenance technician.

5155  
5156 Communications between all members of an AMP is vital for its safe and effective  
5157 operation. Mechanics are often over looked in this communications procedural  
5158 development. Mechanism need to be established for communications between mechanic  
5159 and operational crews for status and availability of aircraft. Communications procedures  
5160 during aircraft maintenance should also be established as per FAA Advisory and be  
5161 included in AMRM training within a program.

5162  
5163 Safety Management Systems

5164 As documented in (reference documents AC 120-92 and IHST).

5165 Safety Management Systems may be defined as a businesslike approach to safety. It is a  
5166 systematic, explicit and comprehensive process for managing safety risks. As with all  
5167 management systems, a safety management system provides for goal setting, planning,  
5168 and measuring performance. A safety management system is woven into the fabric of an  
5169 organization. It becomes part of the culture, the way people do their jobs (Canadian  
5170 Aviation)

5171

5172 AIR MEDICAL RESOURCE MANAGEMENT

5173 According to the Federal Aviation Administration (FAA), “Helicopter Emergency  
5174 Medical Service (HEMS) is a very demanding and time critical / mission orientated  
5175 operation. One consistent priority that needs to be addressed by each individual air  
5176 ambulance organization is the safety of the flightcrew, medical crew, patient passengers,  
5177 and support personnel. No operator goes out anticipating the occurrence of an accident,  
5178 and like most aviation accidents, there is rarely a single event that is the cause of an  
5179 accident. It is usually a multitude of contributing factors that lead to potentially  
5180 catastrophic results. Preventing accidents is the responsibility of everyone involved and  
5181 takes the dedicated involvement of all of the aviation and medical professionals involved  
5182 in the operation to provide the public the safest possible air ambulance service.”

5183 The State of Virginia Medevac Committee has set out a best practices document that clearly outlines the  
5184 state of the AMP’s Community in utilizing and operationalizing AMRM in its “Virginia Office of  
5185 Emergency Medical Services, Medevac Best Practice 2.2.1, Air Medical Resource Management.”

5186 While the likelihood of being involved in a survivable, post-crash fire is low; the  
5187 consequence of not being properly attired is extremely high.

5188

5189 Currently, there are no Federal flammability standards or regulations that exist pertaining  
5190 to uniforms for Air Medical Service personnel, airline pilots or flight attendant personnel  
5191 beyond the standards applied to consumer clothing. In Advisory Circular A-96-88, the  
5192 FAA stated: “Safety experts agree that in order to decrease the chance of sustaining  
5193 burns, it is better to wear long sleeves and pants, than it is to wear short sleeves and short  
5194 pants. In addition, ‘natural’ fibers such as wool and cotton are better than synthetic  
5195 fabrics. Also it is better to have low-heel shoes which are enclosed, and straps or laces  
5196 are encouraged while sandals are discouraged.”

5197  
5198 Flammability assessments performed by Thiokol Chemical Corporation (July 1967) and  
5199 separate testing performed by the Department of the Navy (December 1987)  
5200 demonstrated that Nomex® was superior to cotton in its flame retardant ability but both  
5201 were susceptible to heat transfer. Both reported reduction in heat transfer when multiple  
5202 layers of natural fibers were worn.

5203  
5204 Rotor-wing incidents and crashes place occupants at increased risk for head trauma due  
5205 to blunt force impact with cabin / cockpit interiors and potential head strikes associated  
5206 with improperly secured equipment within the aircraft. To reduce the likelihood of  
5207 significant head trauma, helmet use is strongly encouraged. Helmets with visors  
5208 deployed offer added protection to cockpit occupants in the event of windscreen  
5209 penetration associated with bird strikes during forward flight.

#### 5210 5211 Head-strike envelope

- 5212 4. The interior modification of the aircraft is clear of objects/projections OR the  
5213 interior of the aircraft is padded to protect the head-strike envelope of the medical  
5214 personnel and patients as appropriate to the aircraft.
- 5215 5. The head-strike envelope in the ambulance should be clear of hard objects that  
5216 could cause injury in the event of poor road conditions or sudden stops.
- 5217 6. Helmets are required for rotor wing operations. Helmets for crewmembers must  
5218 be appropriately fitted and maintained according to the program’s manufacturer’s  
5219 criteria or program’s policy.

5220  
5221 All aircraft equipment (including specialized equipment) and supplies must be secured  
5222 according to FAR's. (Use of bungee cords is not considered appropriate when securing  
5223 equipment and supplies). Ambulance equipment must be secured by an appropriate  
5224 clamp, strap, or other mechanism to the vehicle or stretcher/isolette to prevent movement  
5225 during a crash or abrupt stop.

### 5226 5227 SAFETY INITIATIVES

5228 Medical transport services are required to report aviation and ground ambulance  
5229 accidents and strongly encouraged to report incidents to the CONCERN network,  
5230 NOTAMS, Weatherturndown.com and other locally accepted reporting systems and must  
5231 report to the appropriate government agencies. There is a written policy that addresses

5232 reporting incidents or accidents and assigns certain individual(s) with the responsibility to  
5233 report.

5234

5235 HOT REFUELING POLICIES FOR NORMAL AND  
5236 EMERGENCY SITUATIONS:

5237 For aircraft/ambulance, refueling with the engine running, rotors turning, and/or  
5238 passengers onboard are not recommended. However, emergency situations of this type  
5239 can arise. Specific and rigid procedures should be developed by the operator to handle  
5240 these occurrences. Such "rapid refueling" procedures will be covered by the operator's  
5241 training program. Refueling policies should address:

- 5242 • Refueling with engine(s) running or shut down.
- 5243 • Refueling with medical transport personnel or patient(s) on board, which  
5244 includes a requirement that at least one medical transport person remain  
5245 with the patient at all times during refueling or stopover.
- 5246 • Fire hazard policies pertinent to refueling procedures are addressed in the  
5247 certificate holder's Operations Specifications Manual.

5248

5249 See ICAO SMM Draft in Appendix (XX)

5250 See Risk Management A/C

5251 See Canadian Air SMS Fatigue

5252 See Safety Management Systems A/C 120- 92

5253 Quality Improvement

5254 Information discovered as a result of a legitimate quality improvement program MAY be  
5255 protected from discovery in administrative hearings and civil litigation. The Texas  
5256 Department of State Health Services, the legislature and the Courts recognize that this  
5257 protection is necessary so that employees and volunteers are encouraged to bring items of  
5258 concern in matters of policy, protocol, or treatment to the attention of the QI manager.  
5259 Agencies are encouraged to learn how to provide optimal protection for their QI process.

5260 Quality improvement is a problem solving process. It is comprised of five familiar  
5261 components that closely mirror the problem solving process used in patient care and other  
5262 daily activities.

5263

5264 The components are:

- 5265 • Assessment
- 5266 • Goal setting
- 5267 • Plan development
- 5268 • Intervention
- 5269 • Progress evaluation

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Monitoring and evaluation involves continuously collecting data about important aspects of care/service, analyzing the data and recommending needed steps to improve based up on the analysis. The lingering question is “how to carry out monitoring and evaluation?”

A sample, well proven, 10-step Monitoring and Evaluation process.

11. Assign responsibility
12. Delineate scope of care
13. Identify important aspect of care
14. Identify indicators
15. Establish thresholds for evaluation
16. Collect and organize data
17. Evaluate care
18. Take actions to improve care
19. Assess effectiveness of action
20. Communicate findings

Some example indicators to assess may include:

- Scene times
- Protocol compliance
- Endotracheal intubation success
- Cardiac arrest survival
- Specialty patients (pediatric, OB)
- IABP or Invasive Monitoring Patients
- Pain management
- Unit hour utilization
- Controlled substance use
- Invasive Procedures
- Who are discharged home directly from the Emergency Department, or discharged within 24 hours of admission.
- Who are transported without an IV line or oxygen?
- Upon whom CPR is in progress at referring location.
- Who are not transferred from a critical care unit?
- Who are "scheduled transports?"
- Who is air transported more than once for the same illness or injury within 24 hours.
- Who are transported from the scene of injury with a trauma score of 15 or greater or fails to meet area-specific triage criteria for a critically injured trauma patient.
- Who are treated at scene, but not transported.
- Who are not transferred bedside to bedside by the flight team?
- Who are transported inter-facility, and the receiving facility is not a higher level of care than the referring facility?

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The strengths of using a monitoring and evaluation system are:

3. It is a viable method of performance improvement, and
4. It is a systematic approach that guides staff through this difficult and time consuming event. It emphasizes the importance of collecting data - the lynch pin of improvement efforts - related to valid and reliable indicators.

It also emphasizes linking improvement actions to that data so that changes are made based on solid information rather than intuition.

Organizations are encouraged to set priorities for improvement by first cataloging the range of services provided and then giving priorities to the most important aspect – those that are high risk/low volume (less than 30 per period), high risk/high volume(greater than 30 per period), and/or problem prone. Agencies should consider building a matrix of these situations to focus their monitoring and evaluation system.

All individual performance of skills will be tracked for each patient care provider. There shall be an assessment of the following categories:

- Personnel/Staffing
- Clinical Care (Skills performance, Protocol Selection, Patient Assessment, etc.)
- Customer Relations program.
- Education
- Administrative/operational policies
- Compliance with Safety Guidelines
- Compliance with Infection Control Practices

## RESPONSE TO SENTINEL EVENTS

Emergent problems (sentinel events) may arise in any of the categories and topics listed above. The most noticeable tend to fall in the clinical arena. These problems are the ones that tend to get everyone’s attention, spread quickly through the agency, and cause each individual to comment on how they would have handled the situation differently. They are also the problems that are most likely to cause spontaneous, adverse reactions from supervisors, managers, and the medical director.

The first question one must ask when faced with such a situation, clinical or not, is what was the root cause of the decisions and/or actions that were made. Was it due to malice or a defective process? The cause should determine whether the corrective action should be handled via operations (discipline) versus quality improvement (growth).

5358 | Assuming you find the error was made due to a deficit in processes, it is the agency’s  
5359 | obligation to prevent the error and similar errors in the future.

5360

5361 | Various mechanisms can be instituted to find problems. An EMS provider should  
5362 | provide formal methods of data analysis. Other more informal methods such as the  
5363 | “grapevine” can also be used. The most common method of finding problems is the  
5364 | “grapevine”. Some services require complaints and/or concerns to be in writing.  
5365 | Because people are often reluctant to “document” concerns against a peer, quality  
5366 | improvement requires that hearsay concerns be investigated.

5367

5368 | All aspects of the problem must be investigated. How and why the problem occurred  
5369 | should be the focus. Each individual involved should be asked about their observations  
5370 | and opinions of the incident as it occurred, and retrospectively, what they would do  
5371 | differently.

5372

5373 | Given time and due consideration, rather than immediate reaction to a given problem, the  
5374 | QI process may discover extenuating circumstances which may justify the decisions  
5375 | made, or point to a simple education/training solution, rather than a punitive solution  
5376 | based on reflex.

5377

5378 | Trending is important to know how often this situation presents itself. In addition, an  
5379 | attempt should be made to assess how likely others have been and/or would be to make  
5380 | the same decisions and actions.

5381

5382 | Resolution and prevention may take many forms. Most common is some form of  
5383 | education to bring all personnel to a higher minimum competency level. Often, re-  
5384 | engineering of the work place or effort may improve efficiency or avoid future problems.  
5385 | Protocols may be revised or clarified. Likewise, policies or procedures may be  
5386 | developed or re-written. Administrative or clinical controls may be implemented to  
5387 | accommodate the new information received during the process.

5388

5389 | Quality improvement is a dynamic process that is used to not only improve the service to  
5390 | the community, but to prove the value of your agency to the community. Excellence can  
5391 | only be achieved with active participation in a process that explores daily activities.  
5392 | Activities that demonstrate excellence should be documented and emphasized. Those  
5393 | needing improvement must be recognized and adapted. In the end, the public will receive  
5394 | a higher level of care in a more efficient manner.

5395

5396 | Required:

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- 5398 |
- 5399 | • Sentinel Event Management
  - 5400 | • There shall be a definition for sentinel event and “near-misses.”
  - 5401 | • There shall be an assessment of the provider’s response to emergency problems  
5402 | (sentinel events). (Equipment failures, supply deficiencies, medication errors,  
fleet failures, etc.)

- A system in place to monitor customer satisfaction and conflict resolution with the system (Patients and Hospital Personnel are considered customers)

Committee's

Likewise every agency is unique in its structure and components. This then will require unique adaptation of the structure and interaction of committees. For example a small single aircraft operator may only have enough personnel to man every committee by themselves. A unique and creative solution to this circumstance may be that the entire employee group serves on multiple, concurrent committees, which may or may not choose to convene at the same times. Use of the power of the individual personnel is the emphasis and strength behind committees. Committees enable consensus and evolution of the AMP to provide significant increases in ability to understand and improve operations.

Traditionally, we think of committees as small working groups that exist into perpetuity. Over time, it is common for committees to stagnate and become counterproductive. This does not necessary need to be the case. In fact, it may be beneficial for such groups to have a limited scope and a defined lifespan.

A task force or working group can be formed to explore a particular topic, formulate a report and implement the result. Once complete, the group is disbanded and new group is composed to tackle the next opportunity. Such an approach maximizes the opportunity for individual participation and tends to promote a greater degree of enthusiasm within the organization.

Regardless of the approach, there are a limitless number of areas for personnel to contribute. Listed below are a variety of committee examples that an agency should consider. Just as the Incident Command System can be consolidated or expanded in scope dependent on the demands of the particular incident, so too can the committee options listed below dependent on the size and nature of the agency.