Airwaves

News from the FAA New England Flight Standards Region — Winter, 2000-2001 — No. 39

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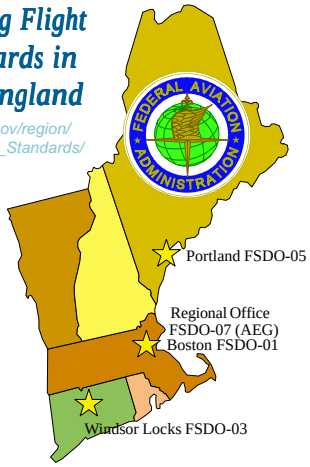

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Internet Sites for Airwaves

www.airsafety.org/Safety_Seminars/Windsor-Locks_FSDO/windsor-locks_fsdo.html

or

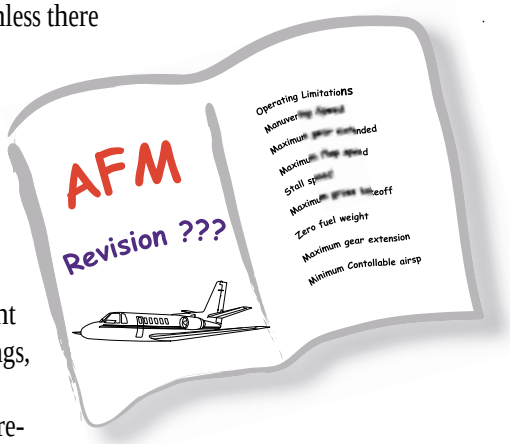
www.faa.gov/region/ane/Flight_Standards/newsltr/news.htm

Is Your Airplane Flight Manual Current?

by Dale Johnson, Aviation Safety Inspector, NE-FSDO-03

I recently participated in an in depth inspection of a FAR Part 135 on demand air carrier that operated multi-engine aircraft. During the inspection it was discovered that several of the operator's Aircraft Flight Manuals (AFM) were not in a current status.

FAR section 135.81 states in part that "Each certificate holder .... shall make available to each pilot .... Aircraft Equipment Manuals, and Aircraft Flight Manual or equivalent". Additionally, FAR Section 91.9 (b) requires that "No person may operate a U.S.-registered civil aircraft ... For which an Airplane or Rotorcraft Flight Manual is required by FAR Section 21.5 ... unless there is available in the aircraft a *current*, approved Airplane or Rotorcraft Flight Manual or the manual provided for in Section 121.141(b); ... and "for which an Airplane or Rotorcraft Flight Manual is *not* required by Section 21.5 of this chapter, unless there is available in the aircraft a current approved Airplane or Rotorcraft Flight Manual, approved manual material, markings, and placards, or any combination thereof".



FAR Section 21.5 also establishes the requirement for flight manuals and their contents. This is accomplished at the time the aircraft is manufactured and part of the certification process. Section 21.5 (a) states in part: "With each airplane or rotorcraft that was not type certificated with an Airplane or Rotorcraft Flight Manual and that has had no flight time prior to March 1, 1979, the holder of a Type Certificate (including a Supplemental Type Certificate) or the licensee of a Type Certificate shall make available to the owner at the time of delivery of the aircraft a current approved Airplane or Rotorcraft Flight Manual".

Another important point is the weight and balance section of the flight manual. Often this section is neglected or overlooked entirely. During a review of an operator's flight manuals it was discovered that the original manufacturer's data was still being used as the most current weight for the aircraft, while, in fact, the current configuration of the aircraft reflected a different avionics package and other interior equipment without the proper weight being updated. Not only is this contrary to the FAR's, but it also may contribute to the cause of an accident. This is extremely important in the rotorcraft community where the

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lateral and longitudinal center of gravity needs to be maintained.

The equipment list is another section of the flight manual that is often neglected. In a recent ramp inspection it was discovered that the equipment list reflected factory installation of avionics and interior components in 1982 (i.e. rear toilet, flight phone, and executive club seating) when the aircraft interior was refurbished in 1992 for 8 commuter seats and a different avionics package was installed. Again, this is contrary to the FAR's.

Keep in mind that the operator of an aircraft must determine that the aircraft is in an airworthy condition per FAR Section 91.7 prior to flight. Airworthy means that the aircraft meets its type design and is in condition for safe operation.

There are several aircraft manufacturer web sites available to the aviation community to better assist an owner/operator in obtaining the most recent revisions to their flight manuals. As always any questions may be referred to your local FSDO. ✈

Recent Legal Decisions

The following cases are reprinted with permission from "The Enforcement Newsletter" published by the FAA's Office of the Chief Counsel. Although the names of the parties involved in each case are a matter of public record, we chose to keep their identities confidential in the context of this newsletter.

Cannot operate with open maintenance discrepancies

The FAA Decisionmaker [the FAA Administrator or delegated person], in the *Matter of [Pilot School X]*,..... held that [Pilot School X] violated 14 C.F.R. § 91.405(a) and (b) by operating two helicopters with open maintenance discrepancies.

[Pilot School X] was a helicopter pilot school certificated under Part 141 of the FARs. While performing routine surveillance at the school, FAA inspectors noticed discrepancy sheets on the wall for two Robinson R-22 helicopters. Both discrepancy or (or "squawk") sheets indicated that each aircraft had open or uncleared discrepancies because there were no indications that any maintenance had been performed regarding the listed discrepancies. Notwithstanding the untended-to discrepancies, [Pilot School X] operated the helicopters with a flight instructor and a student onboard.

On appeal, [Pilot School X] argued that its operations manual required it to use the squawk sheets for operations under Part 141 and that the squawk sheets were Part 141 forms. Since Complainant failed to prove that the subject flights were Part 141 flights, [Pilot School X] contended that it violated no FAR.

In rejecting this contention, the Decisionmaker stated that under Part 91 [Pilot School X] was required to repair discrepancies before the operations in question and to ensure that maintenance personnel made appropriate entries regarding the return of the aircraft to service after maintenance. In other words, while the squawk sheet was a Part 141 form, the requirement to repair and make appropriate entries arose under Part 91.

Air Carrier responsible for repair, not Repair Station

The FAA Decisionmaker, in the *Matter of [Air Carrier X]*. ..... , upheld an ALJ's [Administrative Law Judge] decision that [Air Carrier X] deserved a $5,000 civil penalty for having violated FAR sections 43.13(a) and 121.379(b) where the left engine mount of [Air Carrier X]'s Fairchild F-27F aircraft was repaired in a manner not specified by either the Fairchild Structural Repair Manual or Overhaul Manual.

While reviewing a [Air Carrier X]'s record documenting maintenance performed by a contract repair station, an FAA inspector noted a F-27 engine mount repair that raised his suspicion. The inspector noted the records showed the engine mount had corrosion beyond limits and was repaired in accordance with AC 43.13-IA, which describes how to perform a "sleeve" weld repair. Neither the F-27 Overhaul Manual nor the Structural Repair Manual specifies that a sleeve weld is an allowable repair for an engine mount. The FAA issued a complaint alleging that [Air Carrier X] failed to perform maintenance in accordance with relevant manuals in violation of FAR section 43.13(a), and failed to perform a major repair in accordance with technical data approved by the FAA in violation of FAR section 121.379(b).

After the ALJ affirmed the FAA's allegations, [Air Carrier X] appealed to the Decisionmaker. [Air Carrier X] raised a number of arguments, including that it was entitled to rely upon AC [Advisory Circular] 43.13-IA as approved data for the sleeve repair. The Decisionmaker noted that there was no dispute that the engine mount repair constituted a major repair, and thus, that [Air Carrier X] was obligated to use approved data when repairing the corroded engine mount. It was also uncontested that the F-27 series overhaul and structural repair manuals contained approved data for a major repair of an F-27 aircraft. Yet, concluded the Decisionmaker, "neither the Fairchild F-27 series overhaul nor the structural repair manual referenced the description of the sleeve repair set forth in AC 43.13-

IA," and "[Air Carrier X] did not seek approval for such a repair." Consequently, the sleeve repair "cannot be considered 'approved data' for a major repair of the F-27 aircraft in this case." The Decisionmaker also determined that the F-27 series overhaul and structural repair manuals' silence regarding sleeve repairs cannot be regarded as tacit approval of such a repair.

[Air Carrier X] also argued that since sleeve repairs are permissible for an aircraft similar to the F-27 - the Fairchild FA-227, which uses the same motor mount - such repairs, by inference, can be used in the F-27. The Decisionmaker rejected this contention, slating that "there may be subtle differences that would make a welded sleeve repair appropriate for the FH-227 and not for the F-27F." In any event, "[r]egardless of the similarity between the aircraft, aviation safety demands that maintenance personnel not assume that approved data for the repair of one specific aircraft can be used as approved data for a major repair on a different aircraft."

Finally, the Decisionmaker rejected [Air Carrier X]'s argument that it was entitled to rely with impunity on the repair work of the contract repair station. The Decisionmaker observed that both [Air Carrier X]'s customer coordinator and director of quality assurance were at the repair facility when the engine mount repair was accomplished, and that the individual who signed the airworthiness release was acting on [Air Carrier X]'s behalf. According to the Decisionmaker, "the air carrier cannot delegate away its primary responsibility for the airworthiness of its aircraft. Allowing an air carrier to delegate its primary responsibility for the safety of its aircraft would not serve the public interest."

"... the air carrier cannot delegate away its primary responsibility for the airworthiness of its aircraft ..."

Loose leases

In *Administrator v. [Airman X]* , ... the Board [National Transportation Safety Board] denied [Airman X]'s appeal from the ALJ's finding that he provided air transportation services for employees of [Company A] for compensation or hire without meeting the pertinent requirements of Part 119 or Part 135. The Board rejected [Airman X]'s contention that his lease agreements with [Company A] showed that the latter exercised control over the flights. It found that, notwithstanding the lease language, [Airman X] exercised complete control over all aviation phases and requirements of these flights, leaving to [Company A] only those decisions normally left to a customer paying for transportation services. And the evidence reflected that [Company A] did not understand that it had any responsibility under Part 91 for the operation of the flights. Under these circumstances, the Board found, it makes no difference that the lease purported to shift operational control to [Company A].

Landing on taxiway could be careless or reckless

In *Admimstrator v. [Airman Y]*, ... the NTSB [National Transportation Safety Board] affirmed the ALJ's grant of the FAA's motion for summary Judgment that affirmed the suspension of [Airman Y]'s private pilot certificate for 180 days due to his violations of several FARs, including FAR sections 91.123(a) and 91.13(a).

[Airman Y] received an air traffic control clearance to land on runway one-nine at John Wayne/Orange County Airport. He instead landed on an active taxiway. The order alleged that [Airman Y]'s deviation was careless or reckless so as to endanger the life or property of another. [Airman Y] admitted that he committed the deviation, but averred that his conduct was not careless or reckless.

The NTSB held that landing on an active taxiway is inherently dangerous, notwithstanding the absence of other aircraft on the taxiway. The Board observed: "The fact that no other aircraft were on the taxiway at the time of respondent's landing was merely fortuitous. The potential for endangerment to other persons or property is sufficient to support the finding of a violation of FAR § 91.13(a)." ✈

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Copies of FAA Bulletins, Advisory Circular (AC) Checklist, notices of rule changes, and other Flight Standards information, can be downloaded from the Internet world wide web at ***www.faa.gov/avr/afshome.htm****. You may also contact your local FSDO for a copy of a particular bulletin. AC's may be ordered from, the Superintendent of Documents, PO Box 371954, Pittsburgh, PA 15250-7954 (phone orders: 202 512-1800;fax: 202 512-2250). Master Minimum Equipment Lists (MMEL) may be downloaded from the internet at* ***www.opspecs.com*** *or you can request the specific MMEL from your local FSDO.*

Maintenance Opspec Change

Part 135 air carriers will see more changes in their operations specifications (opspec). Apparently Paragraph D71 (Additional Maintenance Requirements) has been causing some confusion due to the inclusion of sections that do not apply to certain operators. To help avoid this problem paragraph D71 will be broken into four other separate opspec paragraphs. Subsequently, D71 will be eliminated once these new paragraphs have been issued. The new paragraphs are: D101, Additional Maintenance Requirements (Aircraft Engine, Propeller, and Propeller Control (governor)); D102, Additional Maintenance Requirements (Rotor); D103, Additional Maintenance Requirements (Single Engine IFR); and D104, Additional Maintenance Requirements (Emergency Equipment). If you have any questions, please contact your assigned principal inspector.

Increased Emphasis on Airport Movement Operations

As you probably already know the FAA is stepping up its emphasis on preventing runway incursions. As a result it has requested that aviation safety inspectors and FAA Designated Pilot Examiners ensure that applicants for Part 61 practical tests are thoroughly familiar with safe surface movement operations. This emphasis would include, but not limited to, airport signs, lighting, markings, flightcrew coordination, and adherence to taxi clearances. Please refer to FAA bulletin FSAT 00-09/FSGA 00-06 for further information. The sidebar on the next page refers to a list of best practices suggested by the FAA to avoid runway incursions.

Aging Aircraft Opspec

Continuing on the subject of operation specifications (opspecs), paragraph D97 will be issued to those aircraft identified in bulletin HBAW 00-13, such as, B-727, B747, DC-10, L-1011, and others, which comprise the bulk of the aging fleet of aircraft operating under Part 121, 125, and 129. D97 will tie each affected air operator to an FAA approved repair assessment document referenced in the opspec paragraph for a particular aircraft make and model. This requirement is necessary due to the new amendment to the above operating rules, specifically sections, 121.370, 125.248, and 129.32. These regulations were written to ensure that a comprehensive assessment for damage tolerance is completed for fuselage pressure boundary repairs of aircraft listed in the respective regulation. For further information, please consult the above bulletin or contact your assigned principal inspector.

New AC on Flight Deck Procedures

The FAA recently published Advisory Circular 120-71, Standard Operations Procedures for Flight Deck Crewmembers. This document is well worth the reading and provides an excellent guide for all operators of transport category aircraft to develop procedures tailored to their particular flight operation. The AC discusses a number of important concepts and terms relating to stabilized approaches along with modifiable "templates" for developing standard operating procedures (SOP). The purpose of the AC is to establish consistently safe operations through adherence to SOPs that are clear, comprehensive, and readily available to each flight crewmember. Bulletin FSAT 00-08 was issued to further promote and encourage operators of transport category airplanes to establish the protocols explained in the AC. Please refer to the beginning of the *Newsbriefs* section for information on how to order your copy of the AC or contact your local FSDO.

Parts Exchange Program Approved Through Opspecs

The FAA initiated a test program whereby serviceable and unserviceable identical parts may be exchanged between the same aircraft. An example would be exchanging an inoperable High Frequency (HF) transceiver with one that has an operable transceiver to allow another aircraft to operate on a route requiring an HF transceiver. The remaining aircraft, however, is left with an inoperable transceiver on a route which does not require an operable HF transceiver. The program, which is limited at the present time to Part 121 air carriers, requires approval through operations specifica-

tions after meeting the guidance specified in FAA bulletin HBAW 00-15.

Revised Carry-On Baggage AC

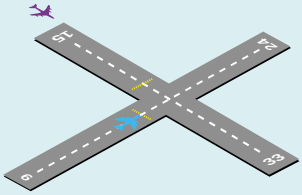
The FAA has issued its revised Advisory Circular (AC) 121-29B, Carry-On Baggage, which provides guidance to air carriers to comply with carry-on baggage regulations. Although the revision does not make any substantive changes, it focuses on improving readability and understanding.

Critical Safety Issues

The FAA is increasing its emphasis on critical safety issues in pilot training curricula. Specifically, these include: Weather, Controlled Flight Into Terrain (CFIT), Runway Incursions, and Land and Hold Short Operations (LAHSO). The added emphasis in pilot training will hopefully ensure that certificated flight and ground instructors, pilot examiners, Part 141 pilot schools, and Part 142 training centers remain aware of the need to reduce accidents and incidents relating to these factors. For further information, please refer to FAA bulletin FSGA 00-07.

Best Practices to Avoid Runway Incursions:

1. Read back all runway crossing and/or hold short instructions.
2. Review airport layouts as part of preflight planning and before descending to land, and while taxiing as needed.



3. Know your airport signs and markings.
4. Review Notices to Airmen (NOTAM) for information on runway/taxiway closures and construction areas.
5. Do not hesitate to request progressive taxi instructions from ATC when unsure of the taxi route.
6. Check for traffic before crossing any runway or entering a taxiway.
7. Turn on aircraft lights and rotating beacon or strobe lights while taxing.
8. When landing, clear the active runway as quickly as possible then wait for taxi instructions before further movement
9. Study and use proper radio phraseology as describe in the Aeronautical Information Manual (AIM) in order to respond to and understand ground control instructions
10. Write down complex taxi instructions at unfamiliar airports.

WATRS RVSM Seminar

The New York Flight Information Region (FIR) portion of the West Atlantic Route System (WATRS) airspace will become exclusionary between FL290-410 inclusive on November 1, 2001. The WATRS region is a complex, high traffic area that is comprised mostly of fixed routes with a significant number of crossings. There are two dominant traffic flows in the WATRS region. One is between North America and the Caribbean, Bermuda, and South America and the other is between the Americas and Europe. Historically, WATRS traffic has been increasing at an approximate rate of 2.8 percent per year. This trend is expected to continue and consequently, both the FAA and the users have agreed that RVSM is needed to accommodate the increased demand for optimum altitudes and routes.

Operators without Reduced Vertical Separation Minimum (RVSM) approval must apply and receive a Letter of Authorization (LOA) or Operations Specifications prior to the use of this section of airspace. Details on WATRS RVSM can be obtained from the FAA's RVSM website at www.faa.gov/ats/ato/rvsm1.htm.

Instrument Approaches Using BARO-VNAV

The FAA has published guidance for the approval and use of Barometric Vertical Navigation (BARO-VNAV) equipment. This equipment is used to conduct area navigation (RNAV) instrument approach procedures (IAP) to a VNAV decision altitude (DA). These IAP must be published in accordance with FAR Part 97

for U.S. operations; or for foreign operations, published in accordance with the standards of the foreign State authority. This guidance, published in FAA bulletin HBAT 00-18A, applies to all certificate holders and operators conducting operations under Parts 91, 121, 125, 129, and 135. Approval to use barometric vertical guidance equipment for certificate holders will be through operations specifications, paragraph C52, or by letter for Part 91 operators.

The impetus for this increased vertical guidance capability is rooted in the FAA's determination to reduce instances of controlled flight into terrain (CFIT) which is a major cause of aircraft accidents during the approach phase of flight. Instrument approaches, without vertical guidance, are particularly prone to CFIT. The United States Secretary of Transportation Safety Summit, the FAA's Safer Skies Initiative, and NTSB recommend that whenever and wherever possible, vertical guidance should be provided to the pilot during all instrument approaches. For further information, please refer to the above bulletin or your assigned principal inspector.

Internet Based Exemption Process

The FAA introduced a process that would permit individu als and organizations to file for a FAA exemption to the Federal Aviation Regulations (FAR) via the Internet. The website (www.faa.gov/avr/arm/exempt.htm) also provides a search process for locating and viewing a petitioner's request, filing comments, reading other comments, and viewing the FAA's decision. FAR Part 11 describes the exemption process. At the present time the website contains only those petitions issued or denied for flight operations. Historical access for *all* exemptions will be available sometime during the summer of 2001.

"... Master Minimum Equipment List (MMEL) policy letters ... are now located on the internet ..."

MMEL Policy Letters Available on the Web

Master Minimum Equipment List (MMEL) policy letters, which are used to formalize MMEL relief as well as provide notification of MMEL/MEL global changes, are now located on the internet at *www.opspecs.com*. The FAA hopes that the consolidation and availability of these policies at a single location will serve to help ensure that all operators are treated equally using the same guidance. Some examples of these policies include MMEL definitions, information resulting from accidents, and clarification of existing MMEL policy. The policies are organized under the relevant ATA coded subject area and will be updated on a continuous basis. Please refer to FAA bulletin HBAT 00-19/HBAW 00-18 for further information.

Resetting Tripped Circuit Breakers

The FAA published guidance that cautions operators when resetting tripped circuit breakers (CB). Bulletin FSAW 00-08A, which is aimed at scheduled air carriers, states that the resetting of a tripped CB has been usually treated as a relatively common occurrence in operations. Generally, resetting a tripped CB is met with no adverse results. However, a review of Service Difficulty Reports involving tripped and reset CB's reveals that the opposite is sometimes true. Smoke, burned wires, electrical odors, arcing, and loss of related aircraft systems have been reported as a result of resetting tripped CB's. FAA recommendations include the following:

1. *In-Flight:* A tripped CB should not be reset in flight unless doing so is consistent with explicit procedures specified in the approved operating manual used by the flightcrew or unless, in the judgement of the captain, resetting the CB is necessary for the safe completion of the flight.

2. *On-the-Ground:* A CB tripped by an unknown cause may be reset on the ground after maintenance has determined the cause of the trip and has determined that the CB may be safely reset. A CB may be cycled (tripped or reset) as part of an approved trouble-shooting

procedure, unless doing so is specifically prohibited for the conditions existing. If an air carrier's minimum equipment list (MEL) contains procedures that allow a tripped CB to be reset, then the same cautions with reference to resetting tripped CB's identified elsewhere in this bulletin also apply.

3. *CB Associated with Fuel Pump Circuit or Fuel Quantity Indicating System (FQIS):* Special caution is appropriate where fuel pumps and/or FQIS are involved, because of the possibility that arcing might lead to ignition of fuel or fuel vapors. The FAA has issued airworthiness directives (AD) affecting certain airplane makes and models that: (1) prohibit the resetting of fuel boost pump CB's in-flight; and, (2) prohibit resetting a fuel boost pump CB while the airplane is on the ground, without first identifying the source of the electrical fault. Because of similar arcing potential, resetting FQIS CB's should be likewise restricted.

The FAA also points out that a detailed logbook write-up is a proven safety practice for tracking purposes, and may provide maintenance personnel with the key to prompt trouble-shooting and effective corrective action on the ground. The bulletin suggests that the write-up should include the following: the conditions existing when the CB trip occurred; the conditions existing when the CB was reset; and, the results of resetting the CB.

The FAA strongly recommends that operating, maintenance, and airplane ground servicing personnel manuals, as well as training programs, contain company policies and explicit procedures regarding resetting tripped CB's, both in-flight and on the ground. The procedures shown in the manuals used by the air carrier's flightcrews, maintenance personnel, and airplane ground servicing personnel should be consistent with the airplane manufacturer's guidance and this bulletin.

For further information, please refer to the above bulletin or contact your assigned principal inspector.

New Winter 2000-2001 Deicing Program Released

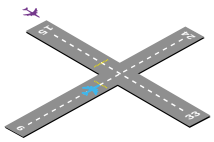
The FAA published its annual deicing program guidance for the upcoming winter season. FAA Bulletin FSAT 00-11C provides revised SAE (Society of Automotive Engineers) approved holdover time (HOT) guidelines for the application of Type I, II, and IV deicing/anti-icing fluid mixtures. This bulletin also includes two additional FAA-approved Type II deicing/anti-icing holdover time guidelines (KILFROST ABC-II PLUS and SAFEWING MPII 1951), and seven FAA approved manufacturer specific Type IV deicing/anti-icing holdover time guidelines (KILFROST® ABC-S, SAFEWING MP IV 1957, SAFEWING MP IV 2001, SAFEWING FOUR, OCTAGON MAX-FLIGHT, SPCA AD-480, and UCAR ULTRA+). In addition, the bulletin presents a listing of all qualified Type I, Type II, and Type IV deicing/anti-icing fluids for the 2000-2001 winter icing season as well as updated information and recommendations on various other ground deicing/anti-icing findings of the past year. Bulletin FSAT 00-11B supercedes two recently issued versions of the bulletin: FSAT 00-11 and FSAT 00-11A.

Supplementing the guidance contained in FSAT 00-11B is Bulletin FSAT 00-10A which provides information and recommendations pertaining to the use of 6 minute and 15 minute holdover times for Type I fluid in conditions of snow and freezing fog. Please refer to the above bulletins for further details or contact your assigned principal inspector.

Customer Satisfaction Survey

The FAA Flight Standards Branch announced a customer satisfaction survey aimed at approximately 16,000 air operators, air agencies, and corporate flight departments. The FAA hopes that the survey will provide valuable information from the aviation industry to improve customer service. Separate questionnaires customized to fit the different aviation organizations are being sent to Part 121, 125, 135, 141, 142, 145, 133, 137, and certain Part 91 operators. Flight Standards will use the survey to address public concerns, target resources, conduct trend analysis, and identify "best practices". National results will be published on the FAA website when the survey is complete. Information on the survey in the form of "frequently asked questions" can be found at http://www.faa.gov/avr/afs/indfreq6.pdf. Operators are assured that no office having jurisdiction over its operations will see the original questionnaire forms. Further questions on the survey may be directed to the Evaluation and Analysis Branch, AFS-130 at 202 267-7772. ✈

Surface Safety:
Everyone's Responsibility



www.faa.gov/ats/ato/ato102