2003 National State's Aviation Workshop
Airspace Coordination
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2002 was another challenging year for airspace issues. Whenever there is a large fire season, airspace related SAFECOMs increase in relationship to the amount of time flown. In 2001, trends indicated a significant amount of Near Mid Air Collisions near airports. 2002 indicated a rise in Near Mid Air Collisions at incidents. Communication and frequency issues continue to be mentioned in a high percentage of airspace related SAFECOMS. In addition, we are still coping with the repercussions of September 11th.

Our airspace program is an accident prevention program. It's immediate goal is to prevent a mid air collision through education, training and coordination. SAFECOMS drive the airspace program by providing trend analysis.

As one of the most challenging in history, fire season 2002 summaries report that 71,160 wildfires burned 7.1 million acres and nearly doubled the ten-year average. Firefighters were successful in suppressing 99% of all fires during initial attack. 2002 will be remembered for its large timber fires. Colorado, Arizona (Rodeo-Chedisky fire was 468,638 acres) and Oregon recorded their largest fires in the last century. Airspace Coordination was extremely complex and faced new challenges. The Field Airspace Coordinator (Technical Specialist) proved invaluable in providing aid to both our dispatch and aviation communities.

SAFECOMS

SAFECOMS is a method of tracking incidents involving TFR intrusions and Near Mid Air Collisions. Two websites are available to monitor airspace SAFECOMS:
DOI: www.oas.gov (click on SAFECOMS) and USFS: www.aviation.fs.fed.us

An analysis of USFS/DOI airspace related SAFECOMS reveals the following information:

Airspace SAFECOMS received: 162
Number of TFR intrusions: 75
Number of Mid Air Collisions identified: 32
Evasive Action Documented: 17
TCAS alarms: 5
Military Involved SAFECOMS: 26 (Note – this figure has doubled from last year)

NATIONAL SAFECOM TOTALS:

OAS: 15	Region 4: 14	Region 9: 3
Region 1: 1	Region 5: 19	Region 10: 1
Region 2: 22	Region 6: 20	States: 14
Region 3: 32	Region 8: 21	

DOD INVOLVED SAFECOMS: Airspace SAFECOMS involving DOD rose from 10 to 26 this year. I contacted Military Representatives from all branches and sent them a detailed breakdown of all SAFECOMS highlighting safety issues (available upon request). The US Air Force invited me to meet with them to establish monitoring procedures with their Safety Officers. The US Navy was extremely responsive and sent the following to all flight crews nationwide. (Note – there was no more DoD related SAFECOMS after this message was sent out.

Wing Operations Officers,

1. It's Fire Fighting season! Fire fighting aircraft (helo and fixed wing) typically operate at or below 3000' AGL between the airspace around the fire and the airspace around the water source (lake, river, ocean).

2. Remind your pilots of the mid-air collision hazard that exists near fires. Avoid smoke and fire by at least 5NM.

3. Avoid a flight violation! The airspace around a fire is often protected by a Temporary Flight Restriction (TFR). If you enter a TFR without clearance you may receive a flight violation.

A. IFR Flight. Air Traffic Control will vector nonparticipating IFR traffic around TFRs.

B. VFR Flight. If you are flying VFR you are responsible for avoiding TFRs. Check NOTAMS for TFRs before you fly. Go to http://www.fs.fed.us/r6/fire/aviation/airspace for a visual display of fire fighting TFRs. Call the nearest Flight Service Station (FSS) on deck at 1-800-992-7433 (or 1-800-WX BRIEF), or airborne on VHF 122.2, or UHF 255.4 to confirm there are no TFRs along your route of flight.

C. MTRs (Military Training Routes). Check for TFRs along your MTRs or stereo routes.

4. Request you forward this info to your squadron operations officers. Recommend squadrons brief at pilot training and post info in flight planning office. US Forest Service Poster:

5. FYI. Email below from Ms. Stewart gives more info on DoD TFR violators.

Very respectfully,
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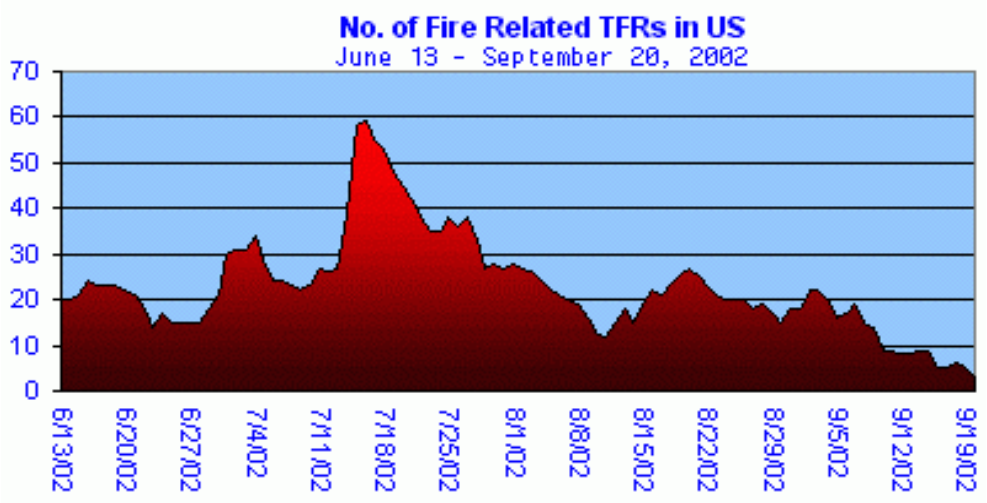
TFR COORDINATION

TFRs were reflective of the size and complexity of our wildfires. Sometimes they were a simple 5 NM radius. Often they were enlarged when the fire increased in size. And then there were legendary TFR's such as Colorado's TFRs, the Rodeo Chediski fire in Arizona and the Oregon fires that challenged both our airspace coordinators, the FAA, DOD and General Aviation in coping with many complex situations.

The number of TFR's reached a peak in July with a total of 59 fire related TFR's on July 15th. Many TFR's were consolidated by the Field airspace Coordinators to reduce their impact on general aviation. **We need to remember that BAER projects to not qualify for a TFR as per the FAA.**



AIRSPACE TOOLS

Many tools are available to assist you with airspace coordination. You will find links and documents at the Interagency Airspace Coordination Website located at www.fs.fed.us/r6/fire/aviation/airspace. Links to everything!

Graphic TFR information is available through several sources including EAA, AeroPlanner, and the FAA. Several branches of the FAA are working towards a graphic TFR website. We have been assisting them with our technology.

USFS: **http://www.fs.fed.us/r6/fire/aviation/airspace**
BLM: **http://airspace.blm.gov**

Many other tools (Videos, Posters, etc) are available. IAMS/CAHIS is one of the BEST tools – Be sure to keep it up to date. 2003 will also see the publishing of the long awaiting Interagency Airspace Coordination Guide.

Do you have the "top ten" airspace tools to assist you?

1) Current Sectionals
2) Current AP1/B Book and Charts
3) Airspace "Calling Cards"
4) Airspace Posters
5) Airspace Plotting Rulers
6) Current IAMS/CAHIS
7) KING Airspace Video
8) Current TFR Request and Temp Tower Request Forms
9) Aeronautical Chart Users Guide
10) Airspace Coordination Guide

A New TFR Form has been approved by the FAA's US NOTAM office and it will be in this year National Mobilization Guide at **http://www.nifc.gov/news/nicc.html** (Click on coordination forms). Here is what is different on the form:

1) Using the exact sentence on the form, the FAA will now include the fire/complex name in the TFR NOTAM. The fire names inclusion has been one of the most requested item this fire season.

2) At the FAA's request, we have retooled the location boxes to include bearing/distance AND lat/long information for polygon TFRs. The FAA includes both bearing/distance and lat/long information in the TFR NOTAM.

3) Lat/Long issue: The US NOTAM office will issue the TFR as Degree's, Minutes and Seconds. They will not convert if you give it to them in a different format.

GPS OUTAGES:
Notams are now available for GPS Outages at www.navcen.uscg.gov/gpsnotices. You can also subscribe to receive outage notices. The US Coast Guard is planning a NOTAM application with the US NOTAM office.

BIRD STRIKES:
Every year we have several bird strikes or wild life strikes noted on SAFECOMS. This information is trended by both the FAA and DOD. "Hot spots" are mapped on the BASH (Bird/Wildlife Aircraft Strike Hazard) website at http://safety.kirtland.af.mil/AFSC/Bash/home.html. The BASH team is one of the oldest organizations committed to reducing wildlife related hazards to aircraft.

The Airport Wildlife Hazard Mitigation website (Part of the Williams J. Hughes FAA Technical Center) offers statistics, trends and on-line strike reporting. Pilots should fill out FAA form 5200-7 when they have experienced a wildlife strike. This information is available at http://wildlife.pr.erau.edu/index.html.

FTA TRAFFIC AREA:
Another advancement last year is the FTA Traffic Area. It clarifies policies and procedures in and around the Fire Traffic Area, which contribute to aviation safety standards.

FIELD AIRSPACE COORDINATOR ASSIGNMENTS:
2002 was a defining year for airspace coordination. We have had great success with our program. Our Field airspace coordinators consist of current government employees (or "AD" hires who travel to fire assignments and assist with airspace coordination in service to the FAA, DoD, Dispatch organization, Coordination Centers, Incident Management Teams and Area Command**.**

Last summer, 24 airspace coordinators filled 55 assignments from May to September. As part of their assignment, the Field Airspace Coordinator performed an outreach program to all neighboring airports and FBO's. Posters, and cards were distributed with the Interagency Airspace URL. In addition, several airspace coordinators were assigned to outreach at local fly-ins. Pilots were extremely interested in receiving information about TFR's especially graphical depictions. Highlight of the season – Coordination with Air Force One!!!

In addition, we outreached at a booth at the Oregon Air Fair and taught an airspace forum. Three Airspace Coordinators received Air Awards for their outstanding accomplishment this past summer. Here is an excerpt from two airspace coordinators who led our program in Washington and Oregon:

"Outreach was conducted between 7/14/01 and 8/18/02. During this period fifty airports in Oregon and Washington were visited, contacts were made with approximately 93 schools, aviation businesses, aviation organizations, and aviation related government offices; 5 university/college associated flight schools, 4 pilot associations: 80 flight schools and aviation related businesses). In excess of 900 pilots were individually contacted during these visits and during four fly-ins. Pilots and flight instructors contacted during this

outreach were universally enthusiastic about easily accessible, web based, graphically depicted TFRs displayed on sectionals. Several flight school CFIs indicated they intended to use materials provided in upcoming lessons with students. In addition, CFI's at several flight schools said they intended to use materials provided for ongoing continuing education for pilots."

September 11th Revisited:

The tragedies of September 11th created some of the most complex airspace issues of all time. I was in Washington DC during the tragedies and ended up in an "undisclosed location" for 21 days as a liaison to the FAA. I have been asked to revisit that time so that we can understand what happened and how we can prepare for the future.

I was in Washington DC on September 10th preparing to host meeting between FAA and DOD NOTAM specialists regarding the USFS TFR Graphical Depiction Website. As the events of September 11th unfolded, I was in position to participate in a unique part of airspace history.

In the immediate aftermath of the attacks, we watched as the FAA grounded all flying aircraft. What was once a robust airspace full of aircraft became a desolate horizon with all aircraft ordered to land based on a decision by NORAD and the FAA. On September 11th, it was ordered at 0925 EDT that all aircraft nationwide not already in the air were grounded, and those in the air were ordered to return to where their flight originated or land at a nearby airport.

SEPTEMBER 12th: On September 12th, I was requested to assist at FAA Headquarters to assist in preparing briefings in response to September 11th. At the time, the FAA and DoD were coping with the implementation of SCATANA, which was a cold war era agreement between DOT/FAA and the Federal Communications Commission (FCC) for the Security Control of Air Traffic and Air Navigation Aids. SCATANA was originally intended to clear the skies following confirmed warnings of attack by the Soviet Union. This would have provided unrestricted airspace for US bomber aircraft and missiles as well as air defense interceptor aircraft, emergency airborne command posts, and associated support aircraft like refueling tankers.

Once SCATANA is implemented, a wartime air traffic priority list is established to allow essential personnel and aircraft to use the airspace. It also allows the disabling of navigation aids. A lesser state of emergency would invoke the Emergency Security Control of Air Traffic (ESCAT), which is basically the same as SCATANA without disturbing NAVAIDS.

ATSCC: Meanwhile, a small group of Air Force Reservists and FAA Air Traffic Specialists were meeting at the Air Traffic System Command Center to focus on how to restore the National Airspace System. Sorting out who absolutely had to fly from those who were simply inconvenienced ultimately fell to the national Defense Department/FAA Air Traffic Services Cell (ATSC); a small office staffed by military reservists and FAA specialists. I was assigned to this cell as a liaison. They coordinated with NORAD, DOD, FAA and had an open phone line with all ARTCC's and Command Centers. Missions were sorted out and prioritized. I was familiar with SCATANA and had a copy of the agreement. I brought our "exemption" to their attention and was able to have the exceptions issued in various FDC NOTAMS. I showed them that emergency and fire fighting aircraft could be authorized to fly under section E – Special Operations:

"In areas that are not critical to air defense or in areas of poor or no radar coverage, the appropriate military authority may wish to authorize additional specific flights which may not qualify high enough priority under WATPL. When SCATANA has been implemented, the

appropriate military authority may authorize flight by granting a Security Control Authorization to the ARTCC or agency requesting the clearance:

1) Organized civil Defense missions
2) Disaster relief flights
3) Agricultural and forest fire flights
4) Border patrol flights
5) SARDA "

WHAT WENT WRONG: Complications and issues were rampant due to the massive amount of interpretation allowed within the system. Wild Horse and Burro operations were allowed in Wyoming while similar missions were shut down in Nevada. Fire fighting operations were allowed and shut down within the State of California by two "cell members" sitting three feet apart. Confusing NOTAMS were issued, cancelled and reissued. Air Tankers were inadvertently shut down when the grounding of agricultural aircraft was implemented. Once a NOTAM was issued, it took time and patience for the corrected revision to be issued.

Rather than a full implementation of SCATANA, a limited version was activated. A Directive from NORAD stated, "SCATANA is not implemented – but we're using prioritization codes within SCATANA for flight approval. The ATSCC Cell knew that they had to get military, law enforcement, and fire fighters back in the air soon to defend and protect the nation.

RETURNING THE NAS TO "NORMAL": For the next several months, the ATSC Cell operated around the clock, seven days a week. My participation involved direct negotiation with the FAA for fire fighting clearances, the use of our national fire fighting transponder code, the clearances of the jets transporting our IMT's to both Washington DC and New York City. I alerted the FAA when they inadvertently grounded our air tankers and was instrumental in the revision of many NOTAMS.

I was also distributing daily messages to the nation about what the current status of NOTAMS was. We activated our Interagency Airspace Coordination Website and had graphic depictions of Security TFR's on the Internet by September 12th. In reviews with the FAA, it was never their intention to shut down public aircraft and many valuable lessons were learned.

Coping with the future: SCATANA is currently being rewritten and the lead agency is the US Army. I have been assured by the authors that the same provisions will exist allowing fire-fighting aircraft to fly. I am attending the US Army National Airspace Conference next month and will have more information after that meeting.

CHANGES: The September 11th attacks led Congress to enact the Aviation and Transportation Security Act (ATSA). Under ATSA the responsibility for inspecting persons and property was to be transferred to the Under Secretary of Transportation for Security, who heads a new agency created by that statute, the Transportation Security Administration (TSA).

On Feb 17th, 2002 TSA assumed the responsibility for inspecting persons and property, this responsibility previously held by aircraft operators. Five days later, the Under Secretary of Transportation for Security issued rulemaking transferring the Federal Aviation Administration rules to title 49 of the Code of Federal Regulations. On that day, the Transportation Security Regulations (TSR) was created.

RECOMMENDATIONS FOR COPING WITH THE FUTURE:

Know and understand the following:

1) National Security and Interception procedures. (AIM Section 6, 5-6-2)
2) Be aware of all national security TFR's - Monitor the US NOTAM Website
3) Monitor Guard frequency (121.5 MHz) and understanding of intercept procedures
4) TFR's over major professional or collegiate sporting events or other major open air assemblies
5) Special TFRs concerning flights over some cities, especially the Washington DC area
6) Restricted airspace wherever the President or Vice President happen to be
7) New rules and regulations for operating into and out of Mexico and Canada
8) Rules against circling or loitering over nuclear sites
9) Know and understand current NOTAMS
10) Graphical and textual depictions of TFRs are at your fingertips!

WEBSITES TO MONITOR

Homeland Security: http://www.dhs.gov/dhspublic/index.jsp
AOPA: http://www.aopa.org
Aero-news: http://www.aero-news.net
Airspace links to TFRs and Graphical depictions: http://www.fs.fed.us/r6/fire/aviation/airspace
FAA: http://www.faa.gov
TSA: http://www.tsa.gov/public/
US NOTAM Website: https://www.notams.jcs.mil/ or https://www.notams.faa.gov/
HAI: http://www.rotor.com/

CLOSING THOUGHTS

Coordination and cooperation is the key to preventing mid air collisions. Times and priorities are changing yet we still need a safe airspace to work in. We are grateful for your cooperation and consideration when we are working to save our nation's resources. This cooperation comes from a common desire to be safe and effective in a high risk environment.

Our goal is to prevent a mid air collision through a concerted effort of our agency leaders, FAA, DoD, our aviation community, our dispatch coordinators and most importantly, those who fly in the National Airspace System. Remember that one out of five intrusions became Near Mid Air Collisions. One out of Three Near Mid Air Collisions resulted in evasive action taken!

The bottom line: September 11th changed how our aviation world is conducted. It is important to be on top of current rules and regulations. Be aware of rumors! Airspace issues are continuing to be extremely complex and we want to be able to continue flying and providing valuable resources to our nation.