**E, R, T:** Cockpit Display of Traffic Information Assisted Visual Separation

Cockpit Display of Traffic Information Assisted Visual Separation (CAVS) is a cockpit avionics application. Pilots may use the aircraft’s CAVS application when controllers assign, and pilots accept, visual separation responsibility from another aircraft on a visual approach just as they do today in order to achieve an operational advantage in the National Airspace System (NAS). Using CAVS, pilots can maintain separation during conditions that may challenge their ability to maintain visual contact, such as landing into a sunset or hazy condition.

In this Issue:

- Cockpit Display of Traffic Information Assisted Visual Separation
- Pilot Deviation Notification
- TCAS Resolution Advisories
ADS-B is the underlying technology being utilized. The pilot performing the CAVS operation must have an ADS-B In system with CAVS capability with an appropriate Cockpit Display of Traffic Information (CDTI) and the traffic-to-follow (TTF) aircraft must have ADS-B Out capability. Virtually all aircraft operating at high-volume airports are ADS-B Out equipped. American Airlines is equipping its entire A321 fleet with ADS-B In equipment over the next 4-5 years.

The CDTI displays a more complete set of information about the TTF aircraft than can be derived from the out-the-window contact, such as the preceding aircraft flight ID, differential ground speed of the two aircraft, and the distance to the preceding aircraft. Flight crews use the information displayed by the CDTI to follow traffic after that traffic is visually acquired and correlated with the information on the CDTI. Once the traffic has been visually correlated, visual separation can continue through the use of the CDTI when the TTF out-the-window is no longer immediately visible. The CDTI will aid in traffic awareness providing pilots with the ability to more readily and more positively identify traffic to follow, and to help maintain visual separation requirements during day and night visual meteorological conditions (VMC) when visibility is hindered by weather conditions, bright sunlight, or nighttime city lights.

CAVS is a tool for flight crews who are authorized by the Flight Standards Service and will require no change in procedures for controllers. Since the CDTI is approved for use as a supplemental aid for pilots who are visually identifying traffic, unlike today, controllers may hear a pilot read back a traffic call sign using the ADS-B information on their CDTI confirming aircraft identification.

An evolution of CAVS is named CDTI-Assisted Separation (CAS). CAS will allow the use of CDTI to maintain “visual-like” approaches in some conditions where visual approach operations must be suspended, such as when conditions at the airport support visual landings, but a layer aloft might make the application of pilot-applied visual separation difficult. CAS will require a specific instruction from ATC in order to perform CAS operations. Trials involving CAS will be underway soon.

(Submitted by AJV-P)

*E,*R,*T: Pilot Deviation Notification – AKA the “Brasher Notification”

Safety Culture: an Ongoing, Cross-Organizational and Collaborative Effort

To identify and correct problems (hazards and risk) in the NAS, we have to build an open and transparent exchange of information and data, which requires trust. If an airman inadvertently makes a mistake, the FAA wants to have an open discussion rather than create a fear of punishment. Just as ATO improves individual controller and system performance through forward-thinking non-punitive processes, the Compliance Program is critical because it looks forward by accepting responsibility and identifying risk, not backward by blaming and focusing on punishment for what is already in the past.

FAA Flight Standards builds trust with airmen via the Compliance Program (FAA Order 8000.373A).
A Brief History

On August 13, 1985, Captain Jack Brasher was the pilot in command of Republic Airlines Flight 77 from Chicago O'Hare (ORD) to Minneapolis-Saint Paul (MSP). During the flight, with the First Officer at the controls during a climb, the crew deviated from an assigned altitude by 700 feet; however, they quickly recovered to the correct altitude. At the time of the event, no mention of a potential pilot deviation was made to the crew. In fact, Captain Brasher was unaware that the FAA had any concern regarding altitude non-compliance. It was not until almost six months and 150 flights later, Captain Brasher received notification from the FAA of a Notice of Proposed Certificate Action. During the investigation, when asked about the flight, Captain Brasher replied that he had no recollection of the flight or any events associated with the flight.

This event, and the subsequent investigation, served as the catalyst for the current FAA Order JO 7110.65, *Air Traffic Control, paragraph 2-I-27, Pilot Deviation Notification*, also known as the "Brasher Notification."

Identifying Risk begins with ATC

When you issue the Brasher Notification you give the airman the opportunity “…to make note of the occurrence and collect their thoughts for future coordination with Flight Standards regarding enforcement actions or operator training.” (Ref. FAA Order JO 7210.632, *Air Traffic Organization Occurrence Reporting, Paragraph 3-I Note*). The ability of the airman to review the circumstances while still fresh in their minds enables them and Flight Standards to identify and mitigate risk that would otherwise remain hidden and possibly cause further problems in the NAS.

Since the Compliance Program has been in place, enforcement actions against airmen have decreased from nearly 70% to about 6.5% of all Pilot Deviations referred to Flight Standards.

Issuing the ‘Brasher’ and Follow Up – Some Considerations

Issuing the Brasher Notification, for even apparently minor or “no harm-no foul” occurrences, enables Flight Standards to establish a productive conversation with the airman regarding a situation that may have posed a risk to the NAS. When engaging an airman that is calling the facility pursuant to a Brasher Notification, remain neutral and stick to the facts. Do not provide your personal opinion, and do not minimize the situation or suggest or comment on the potential outcome of a Flight Standards investigation. This detached and professional approach is the best way we can support Flight Standards in conducting an investigation that leads to a positive, safety-enhancing conclusion.

Remember, issuing the Brasher Notification is not about fault. It’s about information collection leading to risk reduction in a non-punitive environment.
Key Takeaways

| Safety Culture = Just Culture + Learning Culture = Airman/Controller/System Performance Improvement |

✓ Compliance Program represents a risk-based focus on using – where appropriate – non-enforcement methods, or “Compliance Action.”
  o A Compliance Action is not adjudication and is not a finding of violation.

✓ Compliance Program dramatically reduces Enforcement Actions by using Compliance Actions instead.
  o Enforcement Actions will still be taken to address behavior that indicates an unwillingness or inability to comply, intentional deviations, reckless or criminal behavior, or other significant safety risks.

✓ ATO’s role in the Compliance Program is best implemented by:
  o Proper issuance of the Brasher Notification in accordance with pertinent directives for all airmen actions that affect the safety of flight (possible pilot deviations), and;
  o Engaging the airman in a neutral and non-leading manner.

(Submitted by AJI-Runway Safety)

**E,**R,**T:** TCAS Resolution Advisories

FAA Order JO 7110.65, Air Traffic Control, paragraph 2-1-28 a. states:

“When an aircraft under your control jurisdiction informs you that it is responding to a TCAS Resolution Advisory (RA), do not issue control instructions that are contrary to the RA procedure that a crewmember has advised you that they are executing. Provide safety alerts regarding terrain or obstructions and traffic advisories for the aircraft responding to the RA and all other aircraft under your control jurisdiction, as appropriate.”

Controller responsibilities clearly state that traffic advisories be provided, as appropriate. Change 3 to FAA Order JO 7110.65 includes a NOTE to paragraph 2-1-28, which states:

“When notified by the pilot of an RA, the controller is not prohibited from issuing traffic advisories and safety alerts.”

This NOTE emphasizes that responsibility. Indications reflect a misinterpretation in paragraph 2-1-28 that the issuance of traffic advisories was prohibited during TCAS RA events, which is
contrary to the intent of the paragraph. The guidance on delivering traffic advisories is a requirement, as annotated in the paragraph. To avoid confusion, it should be stressed that the requirements of subparagraph a. apply.

(Submitted by AJT)

The Air Traffic Procedures Bulletin (ATPB) is a means for headquarters to remind field facilities of proper application of procedures and other instructions. It is published and distributed on an as needed basis.

Articles must be submitted electronically in Microsoft® Word by the offices of primary responsibility with approval at the group level or above. Articles may be submitted throughout the year.

In this publication, the option(s) for which a briefing is required is indicated by an asterisk followed by one or more letter designators, i.e., * T – Tower, *E – ARTCC, *R – TRACON, or *F – FSS.

(Reference FAA Order JO 7210.3, Facility Operation and Administration, paragraph 2-2-9)
Archived ATPB issues are available online: www.faa.gov/air_traffic/publications/