

GOVERNMENT/INDUSTRY AERONAUTICAL CHARTING FORUM
Instrument Procedures Group
(Transcribed/Re-Formatted)
HISTORY RECORD

FAA Control # 94-01-125

SUBJECT: Holding Airspeeds

BACKGROUND/DISCUSSION: There are presently two holding pattern issues which need to be addressed, review of the overall criteria and connection of the airspeed versus pattern size problem resulting from a GENOT in 1989 which raised airspeeds but did not increase pattern size.

The first issue results from four basic reasons for holding; to absorb delays; to await improving weather conditions; to conserve airspace (SIAP holding patterns in lieu of procedure turns); and to accommodate climbing aircraft. Such diverse reasons demand substantially revised and diverse criteria.

The second issue is a shorter term problem. The FAA recently issued a GENOT on holding pattern airspeeds which corrected a 1989 GENOT advising pilots that 230 knots was the maximum holding airspeed at 14,000 feet and below. ALPA also issued Safety Alert Bulletin 93-6, dated September 3, 1993, on the same subject. Both advised maximum holding speeds were; 200 knots from the minimum holding altitude (MHA) through 6000 feet and 210 knots above 6000 feet through 14,000 feet. There are indications that the old airspeeds are being introduced by some carriers; i.e., maximum holding speed of 230 knots at 14,000 feet and below. As of 1/24/94 no change to 7130.3 or the latest GENOT has been released. Until such time that each holding pattern has been analyzed for obstructions and aircraft separation, no increases in holding airspeeds should be allowed. The retention of 200 knots below 6,000 feet AMSL should be continued until the entire subject of holding criteria can be revisited.

ATTACHMENT: ALPA Holding pattern Issues:

(1) Except where an approved radar vector is provided to the intermediate segment of a SIAP, a pilot is bound by the procedure published on the SIAP chart. Further, except where such an approved vector is provided, the pilot is required to begin a SIAP at a designated IAF, and non-radar clearances should always be via an approved IAF. In those cases where the IAF serves both as an IAF and FAF (or IAF and IF) this is because there is a course reversal segment required by TERPS for an aircraft which has arrived directly at that IAF, as opposed to arrival via a published "NoPT" segment. Until Flight Standards approved TERPS criteria are provided, ATC cannot clear any aircraft, including RNAV equipped aircraft direct to such fixes for a straight in approach. In the event ATC clears an aircraft directly to such a course reversal (procedure turn or holding pattern in-lieu-of) IAF, the pilot is expected to do the required course reversal prior to proceeding inbound into the final approach segment.

(2) FAR 91.175(j) gives three reasons where a pilot shall not do a course reversal on a SIAP, unless an amended clearance is obtained to do a course reversal. The inverse is not so; thus in all other cases, a course reversal is mandatory and cannot be waived by ATC simply because a pilot requests such a waiver. It is improper procedure for a pilot to make such a request.

(3) The following language in FAA HB 7110.65 which pertains to holding is obsolete and/or inappropriate:

(a) Controller approval of higher holding speed in a non-radar environment when requested by the pilot. The controller has no ready way to determine the protected airspace required for obstacle avoidance unless speed is limited to the speeds as set forth by the holding pattern criteria.

(b) Use of 1:500,000 plastic templates for non-published holds. This template language should be deleted and holding not approved at non-published holding patterns except with active radar monitoring.

(c) Related to (a) and (b) above, controllers should not approve higher speeds or increase length of holding legs except where continuous radar monitoring of the holding airspace can be assured. If radar monitoring becomes less than assured, pilots should be directed to return to published holding limits.

(d) Controllers should never approve higher speeds or increased holding leg lengths for holding patterns (in-lieu of procedure turns) on SIAPs.

RECOMMENDATION: For the long term goal, the FAA must review the entire subject of holding patterns and devise criteria that meet the requirements of all four categories of holding. Different flight regimes require different configurations, airspeeds and airspace requirements. In the short term solution for airspeed vs. size, the FAA must evaluate each holding pattern (some easy, some complicated). Both ATC and Flight Standards must evaluate each holding pattern and sign off in each case to assure both obstructions and aircraft conflicts have been considered. If obstacle clearance or traffic separation is compromised, the holding pattern altitude must be raised or the airspeed must stay at the lower value.

COMMENT:

Submitted by: Captain Tom Young
Charting and Instrument Procedures Committee
AIR LINE PILOTS ASSOCIATION

INITIAL DISCUSSION (MEETING 94-01): (From Frank Parr AVN-210 notes): Discussion centered on reasons for holding (for absorbing delays, climbing, eliminating PT, or weather). Also, speeds in the current holding template criteria order are not really the best for emerging aircraft (150-165 might be better). Turboprop aircraft are not separately identified either. ALPA's suggestion is to look at an overall revision of the 1967 criteria (which was developed in 1962). Discussions on a "Band-Aid" fix for now, then go on and make a better diagnosis and change as appropriate. ALPA agreed, and FAA will keep them in the loop during the effort. ALPA will participate. **Action:** Item Open (ALPA)

MEETING 94-02: The group and ALPA agreed to close this item. **Status:** Item Closed.