

**AERONAUTICAL CHARTING FORUM**  
**Instrument Procedures Group**  
**October 20-21, 2003**  
**HISTORY RECORD**

**FAA Control # 03-01-248**

**Subject: Substitution of GPS For Missed Approach Operations**

**Background/Discussion:** An NBAA operator reported that he was unable to fly the ILS Runway 2 approach at Keene, NH because the VOR was OTS. The Missed Approach Segment for the ILS at EEN is predicated on the VOR. No alternated missed approach was available during the recent outage of the EEN VOR. A copy of the approach is attached.

Transitions, feeder routes and missed approaches for navaid-based procedures (including ILS approaches) are included in GPS and FMS navigation databases.

The AIM currently permits substitution of GPS for NDB and DME, but does not allow other substitutions.

AIM paragraph 1-1-20-f-5 states: "Subject to the restrictions below, operators in the U.S. NAS are authorized to use GPS equipment certified for IFR operations in place of ADF and/or DME equipment for en route and terminal operations."

**Recommendations:** NBAA requests that the FAA develop explicit approval for the substitution of GPS guidance during Missed Approach operations when flying navaid-based instrument approach procedures.

**Comments:** This recommendation affects the AIM and Order 7110.65

**Submitted by:** Steve Bergner

**Organization:** NBAA

**Phone:** 845-583-5152

**FAX:** 845-583-5769

**E-mail:** sbergner1@cs.com

**Date:** October 3, 2003

---

LOC I-EEEN <b>108.9</b>	APP CRS <b>018°</b>	Rwy Idg TDZE Apt Elev	<b>6201</b> <b>488</b> <b>488</b>
----------------------------	------------------------	-----------------------------	---

# ILS RWY 2

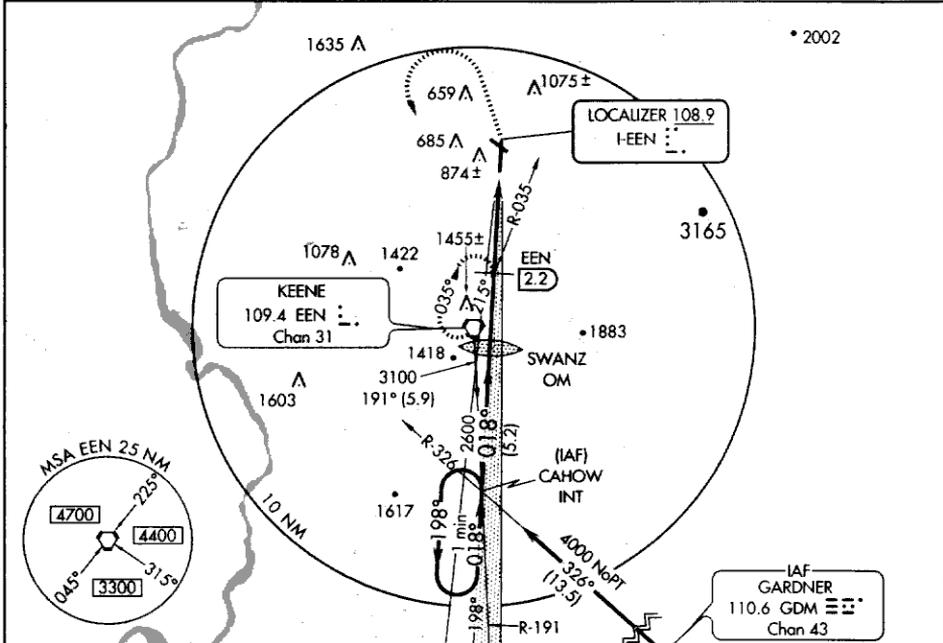
KEENE/DILLANT-HOPKINS (EEN)

**▼** Inoperative table does not apply to S-LOC 2  
**▲ NA** CATs A and B.

**MALSR** 

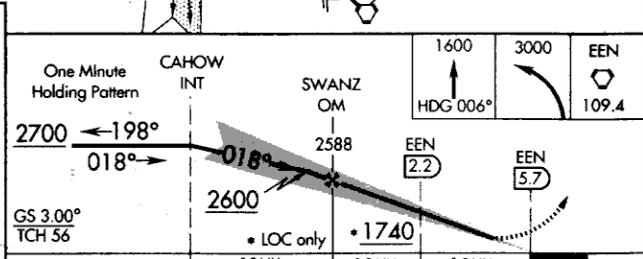
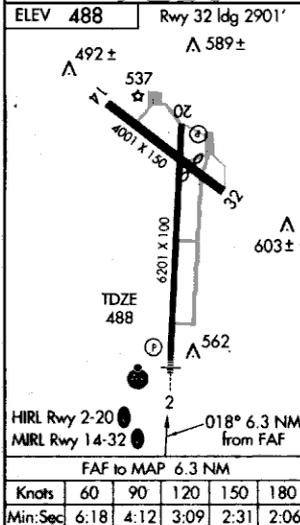
**MISSED APPROACH:** Climb to 1600 via heading 006° then climbing left turn to 3000 direct EEN VORTAC and hold.

AWOS-3 <b>119.025</b>	BOSTON CENTER <b>123.75 338.2</b>	UNICOM <b>123.0 (CTAF)</b>
--------------------------	--------------------------------------	-------------------------------



NE-1, 04 SEP 2003

NE-1, 04 SEP 2003



CATEGORY	A	B	C	D
S-ILS 2	823-1 335 (400-1)			
S-LOC 2	1740-1¼ 1252 (1300-1¼)	1740-1½ 1252 (1300-1½)	1740-2½	1252 (1300-2½)
CIRCLING	1740-1¼ 1252 (1300-1¼)	1740-1½ 1252 (1300-1½)	1740-3	1252 (1300-3)
DME MINIMUMS				
S-LOC 2	1040-1 552 (600-1)			1040-1¼ 552 (600-1¼)
CIRCLING	1380-1¼ 892 (900-1¼)	1500-1½ 1012 (1100-1½)	1500-3 1012 (1100-3)	1600-3 1112 (1200-3)

KEENE, NEW HAMPSHIRE  
Amdt 2A 02052

42°54'N-72°16'W  
165

KEENE/DILLANT-HOPKINS (EEN)  
**ILS RWY 2**

**Initial Discussion - Meeting 03-02:** New issue submitted by Steve Bergner, NBAA. The issue was prompted when a NBAA member, in a GPS equipped aircraft, was refused an ILS approach because the missed approach instructions required the aircraft to proceed to a VOR and hold. The VOR was out of service and there were no alternate missed approach instructions available. The missed approach in question required a climb to an altitude via a dead reckoning heading followed by a turn direct to the VOR, all maneuvers within GPS navigation capability. NBAA is asking the FAA to consider allowing GPS to be substituted for VORs as is allowed for NDBs and DMEs. Bill Hammett, AFS-420 (ISI) agreed to forward the issue to AFS-410 for consideration. **ACTION: AFS-410.**

---

**MEETING 04-01:** Vinny Chirasello, AFS-410, reported that his office is working the issue. Several meetings have been held and it has been determined that legal issues are involved. There are also TSO questions regarding supplemental vs. sole means navigation. A legal opinion will have to be obtained from FAA Chief Counsel. Randy Kenagy, AOPA, asked if WAAS is acceptable for substitution and Vinny responded yes. **ACTION: AFS-410.**

---