



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety

Washington, DC 20594

DCA01MA034

Air Traffic Group Factual Report of Investigation

Attachment 8 – Procedures Data, pre-1991, 21 pages

#19

JEPPESEN

MAR 2-90 (13-1)

EL: MARS

ASPEN, COLO

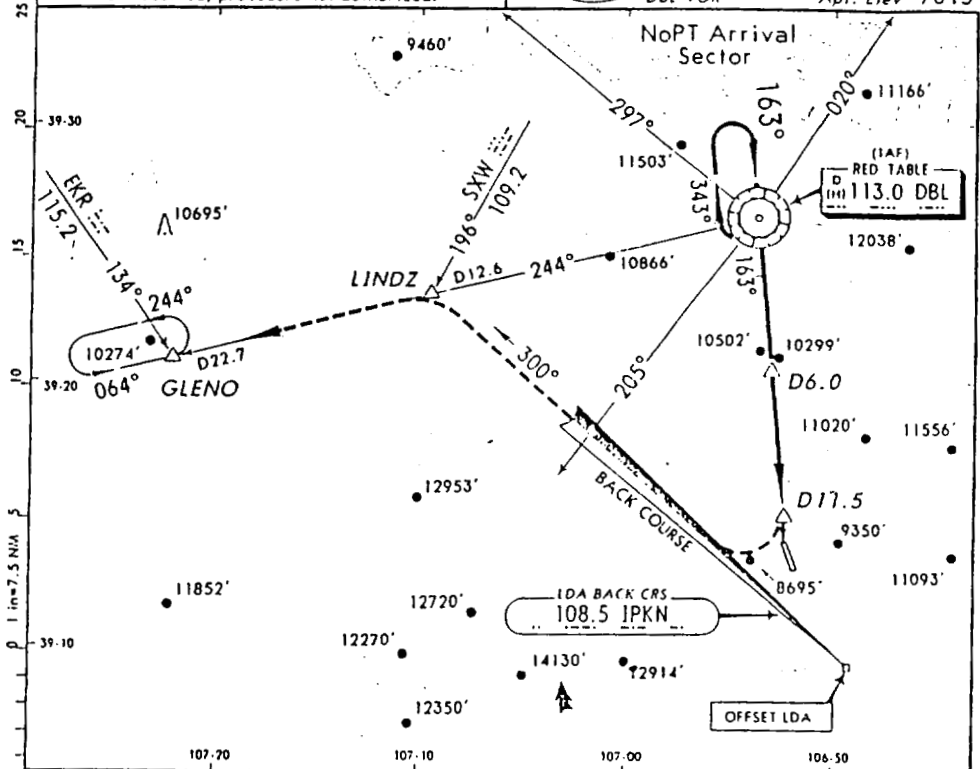
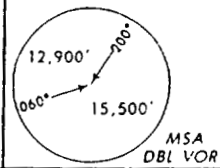
-PITKIN CO/SARDY

VOR DME-C

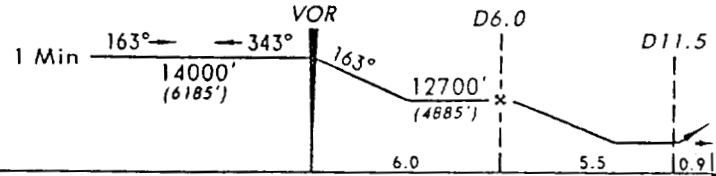
VOR 113.0 DBL

Apl. Elev 7815'

* ATIS 120.4
 * ASPEN Approach (R) 134.9
 DENVER Center (R) 128.5 when App inop.
 * ASPEN Tower CTAF 118.4
 Ground 121.9
 Obtain local altimeter setting on CTAF;
 when not received, procedure not authorized.



Procedure not authorized at night.
 Dual VHF navigation receivers required.



MISSED APPROACH: Climbing RIGHT turn to 14000' heading 300°, then intercept and proceed via IPKN LDA NORTHWEST course and outbound DBL VOR R-244 to GLENO INT/D22.7 and hold.

		CIRCLE-TO-LAND	
		DAY	NIGHT
A B C D	Max Kts	10840' (3025')-2	NA
	90	10840' (3025')-3	
	120	NA	
	140		
		165	

CHANGES: See other side.

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ASPEN, COLO
-PITKIN CO/SARDY

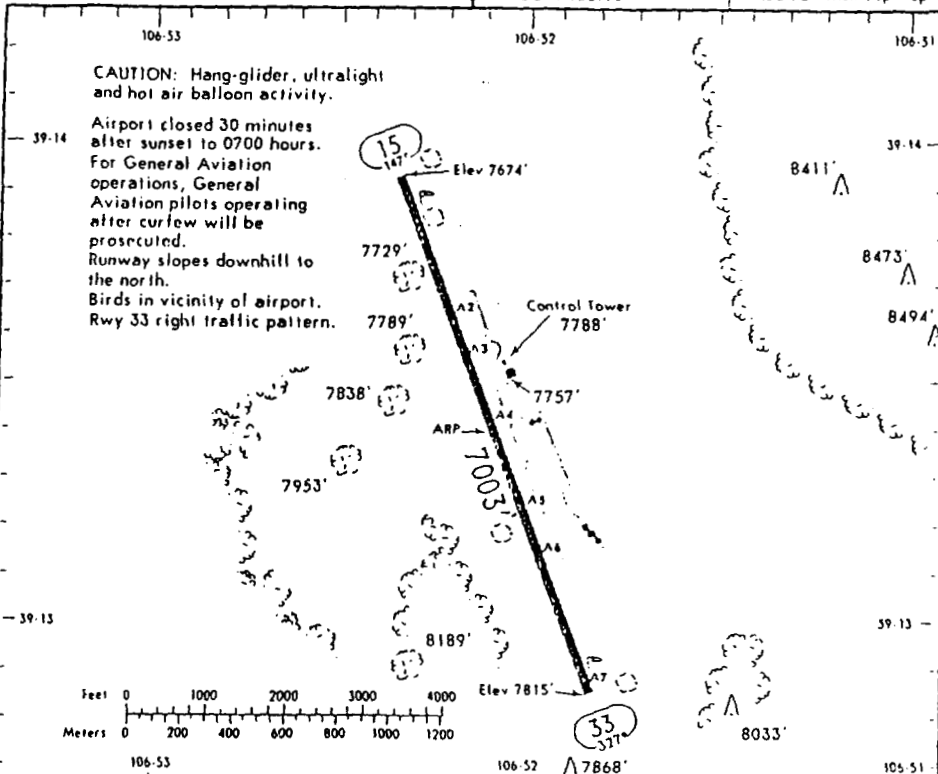
ASE (13-1) MAR 2-90

JEPPESEN

N39 13.4 W106 52.1 162.7°/13.0 From DBL 113.0
Elev 7815' Var 12°E

•ATIS 120.4
ASPEN Ground 121.9
•Tower CTAF 118.4
UNICOM 122.95

•ASPEN Departure (R) 134.9
DENVER Center (R) 128.5 when Dep inop



RWY	MIRL	Landing Lights	USABLE LENGTHS		TAKE-OFF	WIDTH
			LANDING BEYOND Threshold	Glide Slope		
15	MIRL	① LDIN REIL ② VASI-L			NA	100'
33	MIRL					

- ① 7 strobes beginning 5.0 miles.
- ② Unusable beyond 4 NM from AER 15 due to terrain.

TAKE-OFF & IFR DEPARTURE PROCEDURE				FOR FILING AS ALTERNATE	
Eng	Rwy 33		Other	Rwy 15	
	Adequate Vis Ref	STD		A	B
1 & 2	1/4	1	5000-5	NA	NA
3 & 4		1/2			

IFR DEPARTURE PROCEDURE: Climbing left turn to 14000' via 270° heading to intercept and proceed northwest-bound via IPKN northwest course (outbound on backcourse) and DBL VOR R-244 to Gleno Int/DBL VOR D22.7. Climb in Gleno holding pattern to MEA for assigned route, thence via assigned fix/route.

CHANGES: Rwy 33 take-off minimums, IFR departure procedure. © JEPPESEN SANDERSON, INC., 1986, 1990. ALL RIGHTS RESERVED.

ASPEN-PITKIN COUNTY AIRPORT
SUMMARY OF AIRPORT OPERATING HOURS
October 24, 1989

I. HISTORY

- a. Airport opened in 1946 as a private use airstrip.
- b. Dedicated to County in 1957, opened for public use.
- c. Certificated air carrier service began in 1963-64.
- d. Rocky Mountain Airways installed private precision approach (TALAR), and runway lights in 1974.
- e. Airlines began nighttime operations in mid-1970's.

II. RATIONALE

The basis for establishing the airport operating hours as they currently exist are due to noise impact and safety at the airport and surrounding community. It is the opinion of the County that it is inherently unsafe for general aviation aircraft to conduct flight operations during nighttime hours. It is the opinion of the County that a local government, and airport sponsor should have the right to establish and enforce local noise limits to protect the surrounding community.

All governmental actions involve a balancing of legitimate competing interests; this is also the case with the airport curfew. Given the low level of actual demand for nighttime general aviation access to the airport, and the high impact of nighttime traffic the County feels that this can best be accomplished, in part, by managing nighttime airport operations to the greatest extent feasible, and maximizing daytime capacity.

III. RECENT ACTIONS

On August 30, 1989, the National Business Aircraft Association (NBAA) registered an official complaint to the Federal Aviation Administration (FAA), alleging that the existing regulation of airport operating hours discriminates against general aviation users. On September 25, 1989 the FAA advised Pitkin County of it's investigation of possible violation of federal grant assurances (Assurance No. 22 Economic Nondiscrimination), and directed the County to provide it's rationale for the establishment of the curfew. The County submitted its position on the airport operating hours on September 26, 1989. That position, along with other information, is currently being reviewed by the FAA.

CURFOTLN

ASPEL ASE)
ASPEL ONE DEPARTURE (VECTOR)

ASPEN-PITKIN COUNTY/SARDY FIELD
 ASPEN, COLORADO

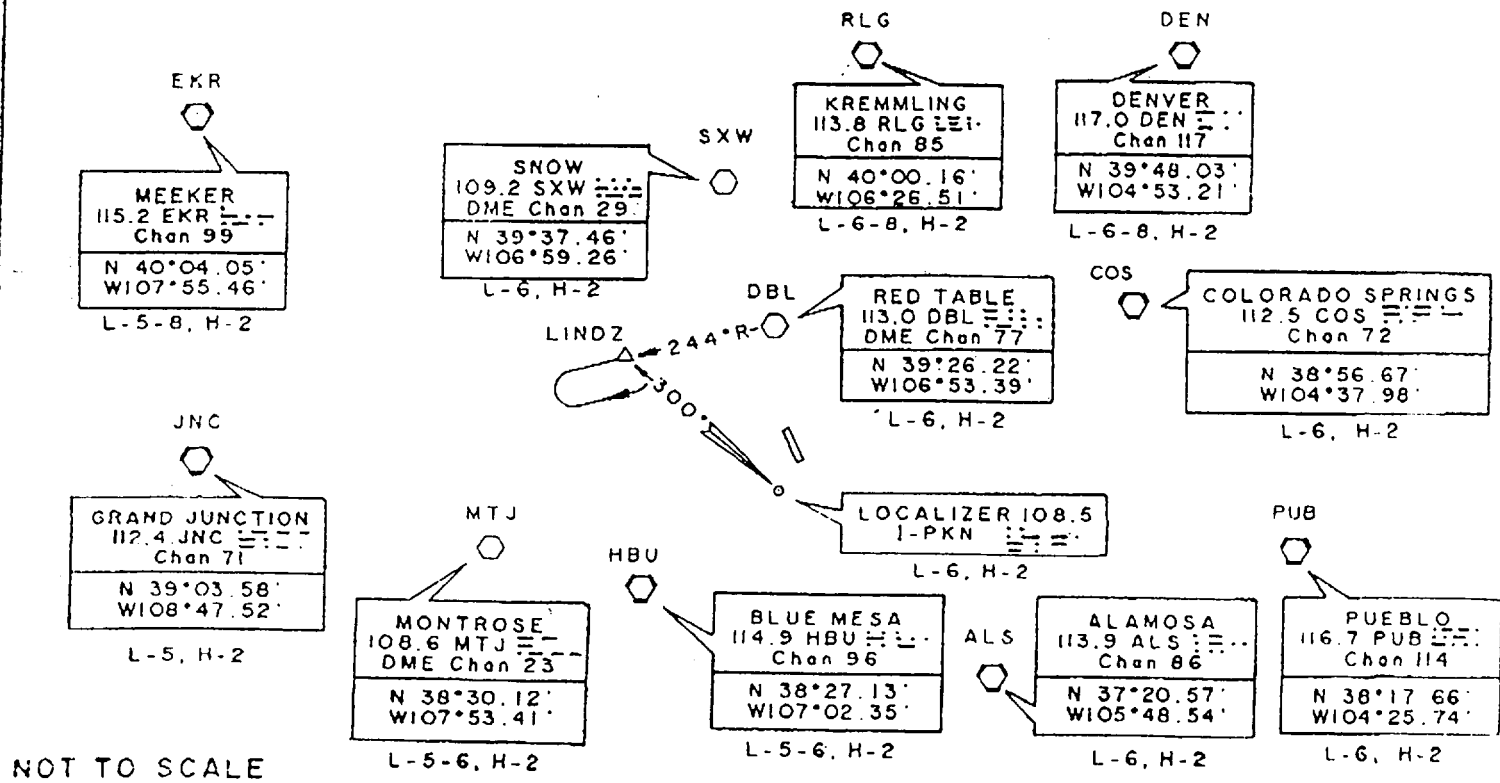
DRAFT

ATIS: 120.4
 GRND: 121.9
 TOWER: 118.4
 DEP CON: 134.9

NOTE: THIS IS A RADAR VECTOR DEPARTURE TO ASSIGNED ROUTE/FIX. ROUTE DEPICTED IS LOST COMMUNICATIONS PROCEDURE ONLY.

NOTE: APPLICABLE ONLY WITH APPROACH CONTROL RADAR.
 NOTE: ATC INITIAL HEADINGS AUTHORIZED FROM 310° CW TO 360° ONLY.

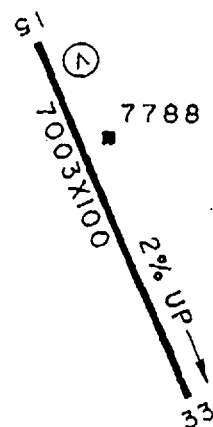
NOTE: THIS SID REQUIRES A MINIMUM CLIMB OF _____ PER NM TO _____, OR CEILING/VISIBILITY MINIMUMS OF _____.



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 15: NOT AUTHORIZED.
 TAKEOFF RUNWAY 33: FLY ASSIGNED HEADING FOR RADAR VECTORS FILED/ASSIGNED FIX/ROUTE. MAINTAIN 16,000 FEET OR ASSIGNED LOWER ALTITUDE. EXPECT CLEARANCE TO FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.
 LOST COMMUNICATION: IF NO TRANSMISSIONS ARE RECEIVED FOR _____ AFTER DEPARTURE, CLIMBING LEFT TURN TO INTERCEPT NW COURSE 1-PKN TO LINDZ INTERSECTION. CLIMB IN LINDZ HOLDING PATTERN TO MEA FOR ASSIGNED ROUTE, THENCE VIA ASSIGNED FIX/ROUTE.

ELEV 7815



ASE)
ASPEN ONE DEPARTURE (VECTOR)

ASPEN-PITKIN COUNTY/SARDY FIELD
 ASPEN, COLORADO

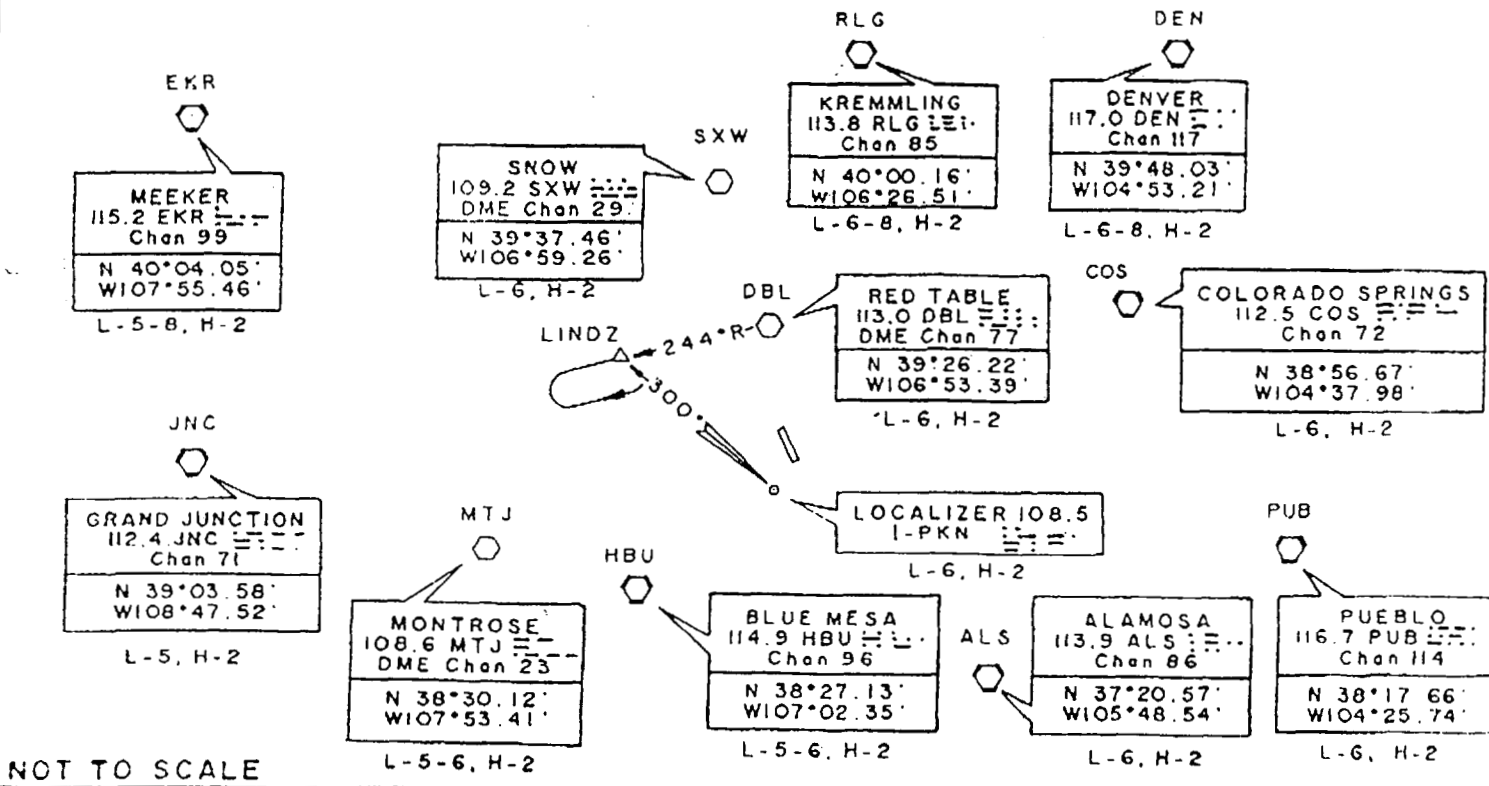
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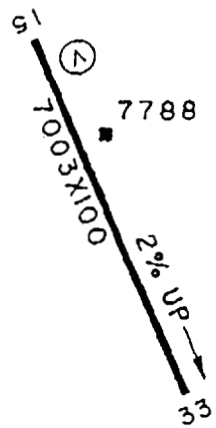


NOT TO SCALE

DEPARTURE ROUTE DESCRIPTION

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ELEV 7815



FACSIMILE BEING SENT FROM WASHINGTON LIAISON STAFF, AVN-5
WASHINGTON, D.C.

AVN-5 FACSIMILE TELEPHONE NUMBER: 426-8987
CONFIRMATION NUMBER: 267-3848

DATE 8/16/88

SUBJECT Aspen, CO
VOR/DME-C

NUMBER OF PAGES TO FOLLOW 5

Mr. D. Sloan / J. Green SAC FIFO/460-5331
NAME OF RECEIVER ROUTING SYMBOL/TELEPHONE NUMBER

T. Quinlan AFS-230/267-8277
NAME OF SENDER ROUTING SYMBOL/TELEPHONE NUMBER

COMMENTS Attached are note/memo sent to
the Administrator on 8/12. A Memorandum
from ANM-200 was used in part
to provide background.

Date: 8/11/88

BRIEFING MEMORANDUM
OFFICE OF FLIGHT STANDARDS

SUBJECT: Public Use VOR/DME-C Instrument Approach to Aspen-Pitkin County/Sardy Field Airport, Aspen, Colorado

The Federal Aviation Administration's Northwest Mountain Region, in response to the concerns expressed by the community of Aspen, officials of Pitkin County, and user groups, has identified the need to upgrade the existing air traffic services at the Aspen-Pitkin County/Sardy Field Airport. It has been determined that the establishment of a limited radar approach control facility in the air traffic control tower will best provide these enhanced services.

The proposed commissioning date for this facility is October 1989. To increase traffic flow and use the radar to its maximum capability, it was determined that a new missed approach procedure for the VOR/DME-C and a new departure procedure would be necessary to facilitate air traffic flow to the northwest. It was determined these modifications, even prior to radar commissioning, would enhance the traffic situation at Aspen. December 15 is the target date for the amended VOR/DME-C procedure and public use departure procedure.

A localizer-type directional aid (LDA) will be sited 4 miles southeast of the airport to provide a missed approach course to the northwest. The LDA will also provide positive course guidance for aircraft on the published departure procedure. Aircraft climbing out on the LDA, above 12,000 feet mean sea level (m.s.l.), will find the Carbondale NDB straight ahead on a bearing of 295 to the NDB. (See the attached sketch.)

For safety reasons, the LDA will provide positive or direct sensing (right needle, fly right) to the pilot while outbound on the LDA. Flight Standards has requested a distance measuring equipment (DME) be installed with the LDA to enhance the facility.

Every attempt will be made to amend the private approaches for the carriers to bring their missed approach/departure procedures into agreement with the public procedures.

The last Northwest Mountain Region working group meeting was held on August 8 to verify requirements for subject airport. All members left the meeting in agreement that maximum effort will be expended to complete the project by December 15. The Sacramento Flight Inspection Field Office (SAC FIFO) can meet that date.

Please contact the Flight Procedures Standards Branch, AFS-230, if we may be of assistance.

Attachments
Bullets

Prepared: Quinlan
AFS-235
267-3738

Dated: Aug. 12, 1988

AUG 12 1988

NOTE TO: The Administrator
The Deputy Administrator
THRU: Acting Executive Director for Regulatory
Standards and Compliance
SUB: Public Use VOR/DME-C Instrument Approach
to Aspen-Pitkin County/Sardy Field
Airport, Aspen, Colorado

Per your request on August 9, the attached
information is provided.

Original Signed By:
A. J. Broderick

Anthony J. Broderick

cc:
AOA-2

Attachment

cc:
AIR-1
AVR-1
AVS-1
AFS-1
AFS-200
AFS-230

AFS-235:QUINLAN:dab:267-3738:8/10/88
(Kaypro: VOR/DME, DB's #1)

FILE: _____

SUBJECT: Bullets on Aspen-Pitkin County/Sardy Field Airport
Aspen, Colorado

- o Recognized need to increase traffic flow.
- o Establish a limited radar approach control in 1989.
- o Amend the public use VOR/DME-C instrument approach December 15 to provide missed approach to the northwest using a LDA. Direct sensing (right needle, fly right) will be provided by the LDA while flying outbound.
- o Publish public use departure, using the LDA, on December 15.
- o LDA will be sited near airport and provide positive course guidance during missed approach or departure. DME has been requested to be added to the LDA.
- o Private instrument approaches can be amended later to take advantage of the course guidance provided by the LDA.

Last Page
ANN-200
"ASPEN"

CC:
AEX-1, AOA-2
AKR-1, AFS-1
AFS-200, AFS-230
AVS-1, AVN-1
AVN-200, ANM-200

FILE: _____

(FILE COPY)

MEMORANDUM

U.S. Department
of Transportation

Federal Aviation
Administration

Northwest Mountain Region
17900 Pacific Highway South
C-68966
Seattle, Washington 98168

Subject: ACTION: Amend (DBL) VOR/DME-C, Amendment 3
at Aspen, Colorado

Date: July 17, 1989

From: Manager, Flight Procedures Branch, ANM-220

Reply to: Chapman
Attn. of: FTS 446-2212

To: Manager, Sacramento Flight Inspection Field Office, SAC FIFD

Per 7/17/89 TELCO: Foit / Chapman

Please review and if possible amend the (DBL) VOR/DME-C, Amendment 3.
Instrument Approach Procedure at Aspen-Pitkin County/Sardy Field, Aspen,
Colorado as follows:

1. Relocate the FAF to DBL 5 DME.
2. Name the FAF. "ALLIX" has been pre-coordinated.
3. Provide a stepdown fix in the final approach segment, approximately
midway between the FAF and the MAP.

It appears that a significant reduction in minimums might be achieved if the
FAF were located at 5 DME and a stepdown fix were added to the final.

Priority: ROUTINE

Thank you.

ORIGINAL SIGNED BY:

Preston C. Gardner, Jr.

Attachments: Letter from Continental Express dated June 22, 1989.
Speed Memo from ANM-530 dated 5/15/89.

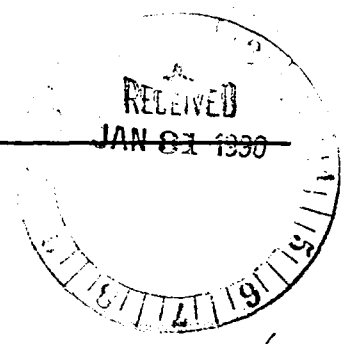
cc: ANM-530

FILE: ANM-220/B260:ASE-1 (9052608 JC)



U.S. Department
of Transportation
**Federal Aviation
Administration**

Memorandum



Subject: ACTION: Amend (DBL) VOR/DME-C,
Amendment 3 at Aspen, Colorado

Date:

From: Manager, Flight Procedures Branch, ANM-220

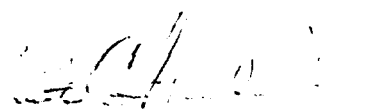
**Reply to
Attn. of:**

To: Manager, Sacramento Flight Inspection
Field Office, SAC FIFO

On July 17, 1989, this office provided you with a memorandum requesting an amendment of the (DBL) VOR/DME-C, Amendment 3, Instrument Approach Procedure at Aspen-Pitkin County/Sardy Field, Aspen, Colorado. A study suggested that relocating the FAF to DBL 5 DME and establishing a stepdown fix in the final approach segment might lower the MDA by as much as 400 feet.

In a verbal response from your office, it was stated that our request could not be complied with; however no supporting documentation was provided.

Please review our July 17, 1989, memorandum and if possible take action to amend the procedure as requested. However, if after further review it is determined that the requested amendment is not possible, please provide this office with a detailed report including 1) the latitude, longitude and elevation of obstacles in question, 2) the specific pertinent paragraphs of TERPS and 8260.19, 3) the resultant minimum at the FAF, stepdown fix and MDA and 4) rate of descent required in the intermediate and final segments.

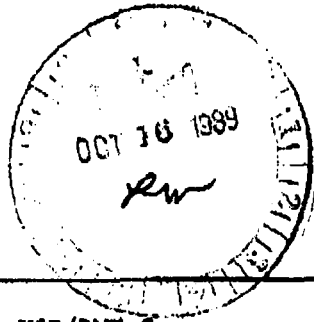

Preston C. Gardner, Jr.

Attachments: Memorandum dated July 17, 1989.

cc: ANM-530



U.S. Department
of Transportation
Federal Aviation
Administration



Memorandum

Subject: ACTION: Aspen, Colorado VOR/DME-C
Minimums

Date: OCT 12 1989

From: Manager, Flight Procedures Branch, ANM-220

Reply to
Attn. of:

To: Manager, Sacramento Flight Inspection Field Office

Due to a number of requests for information, this office is in need of a memorandum from your office which details your reasons and rationale for continuing to recommend the present minimums for the VOR/DME-C public approach at Aspen, Colorado.

As your schedule permits, please try to furnish this information as soon as possible so that we can provide answers to those questions mentioned above.

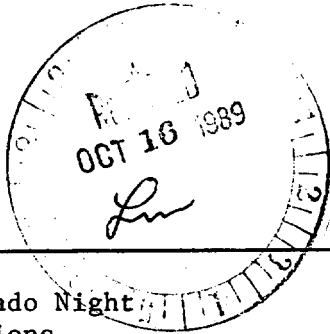
Thank you.

Preston C. Gardner, Jr.



U.S. Department
of Transportation
**Federal Aviation
Administration**

Memorandum



Subject: ACTION: Aspen, Colorado Night
Operations - Restrictions

Date: OCT 12 1989

From: Manager, Flight Procedures Branch, ANM-220

**Reply to
Attn. of:**

To: Manager, Sacramento Flight Inspection Field Office

Please remove the note restricting night operations from the Aspen,
Colorado VOR/DME-C public procedure.

Should you have any questions or comments, please contact me or John
Chapman at FTS 446-2220.

Thank you.

Preston C. Gardner, Jr.



U.S. Department
of Transportation
**Federal Aviation
Administration**

Memorandum

Subject: INFORMATION: ASPEN-PITKIN/SARDY FIELD, CO
VOR/DME-C, Amdt 3

Date: October 27, 1989

From: Manager, Sacramento Flight Inspection
Field Office, SAC FIFO

Reply to
Attn. of: Foit FTS:460-5340

To: Manager, ANM-220

Night minimums at Aspen-Pitkin/Sardy Field, CO have been denied IAW Order 8200.1, Para 214.43, Order 8260.19A, Para 110 and Order 8260.3B. Day operations in and out of Aspen are difficult under the best of circumstances. Night operations would present an unjustified degradation in safety. Order 8200.1, Para 214.43 states, "For original procedures at airports having no prior IFR service, a night flight inspection will be conducted to determine the adequacy of airport light systems prior to authorized night minimums." Not a single Flight Inspection pilot in this office will conduct the flight at night in order to remove the restriction. Given the extremes of weather, terrain and available ground reference lighting it is the firm belief of both the Flight Inspection Section and involved Procedures personnel that approval of night operations at Aspen presents a hazardous situation for the general public.

John D. Pearsall, Jr.

Subject: ASPEN, CO., VOR/DME-C

RITA: FOIT

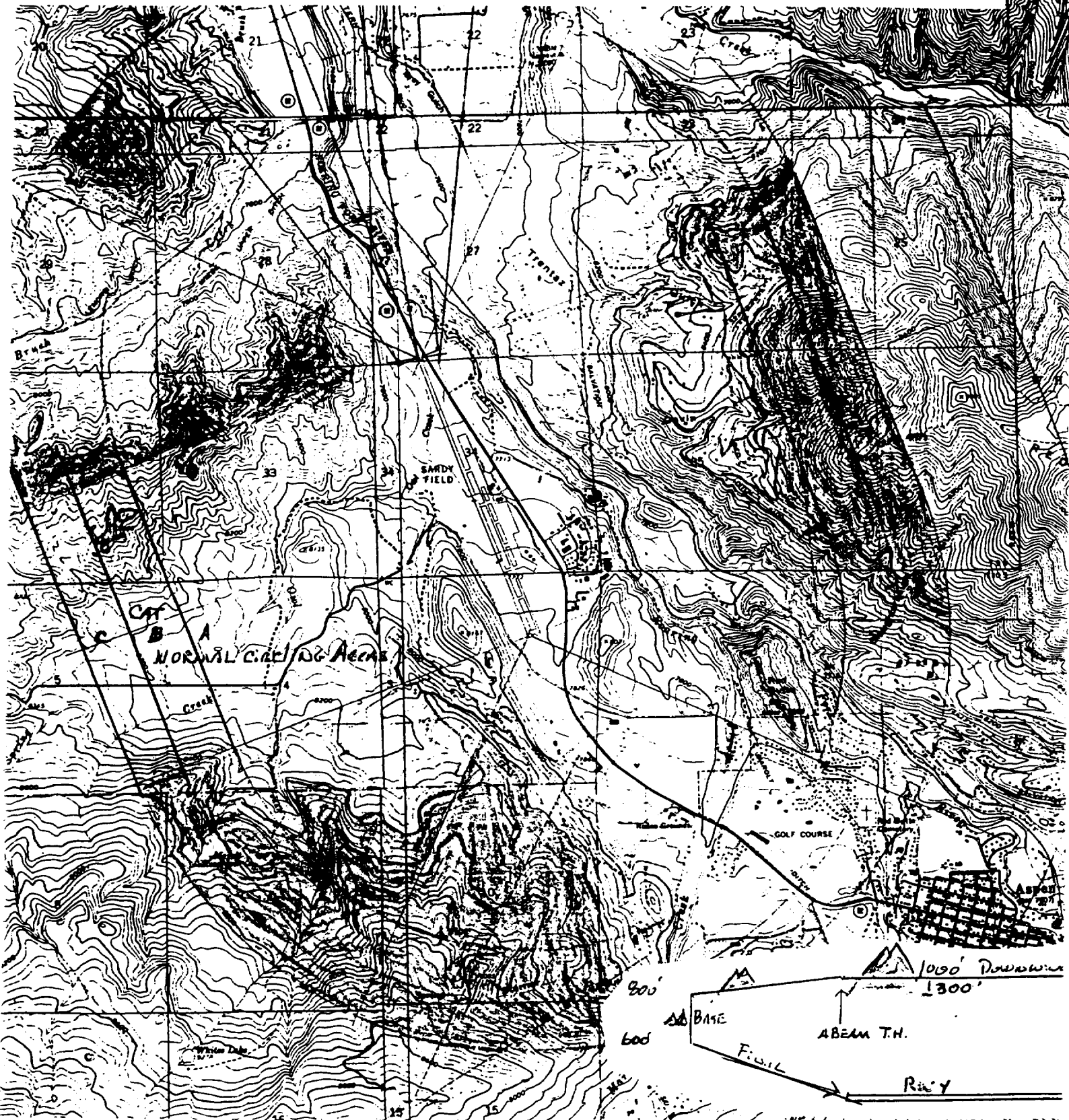
From: MGR SAC FIFO

TO: MGR ANM-220

The present minimums for the VOR/DME-C, Amdt 3 at Aspen, CO are a result of the missed approach obstacle identification surface and charted controlled airspace. A control zone exists at Aspen, however it was charted for the old NDB-A SIAP. This control zone is not adequate for the VOR/DME-C approach. If in the future, airspace were to be revised to add a new key to encompass Red Table VOR/DME it is possible that lower minima could be achieved. Preliminary "ROC" studies indicate that the missed approach will continue to control procedural minima.

REASONS FOR DISALLOWING HIS PROCEDURE AT NIGHT:

- 1-Pilots are trained to fly standard patterns at unfamiliar airfields. A standard pattern consists of 1000ft above airport elevation on downwind, start descent when abeam the intended point of touchdown, continue downwind until 45° beyond the threshold and approximately 200ft lower than downwind, turn base and continue descent until lined up for final and approximately 500 to 600ft above airfield elevation.
- 2-Flying a standard pattern at this airport would put the aircraft below ground level in the areas colored red, and leave it with insufficient terrain clearance in the areas colored in yellow.



[Handwritten signature]

NIGHT USE OF ASPEN/PITKIN CO. VOR/DME-C APPROACH

BASED ON THE EXPERIENCE OF TWO DAYS OF FLIGHT CHECKING, OPERATING IN
AND OUT OF THE PITKIN CO. AIRPORT, ^{ASPEN Colorado, Strangely KIDNAPED} I ~~SUPPORT~~ CONTINUING THE POLICY DENYING
THE GENERAL PUBLIC NIGHT USE OF THE VOR/DME-C APPROACH TO ASPEN/PITKIN CO.
AIRPORT. THE PUBLISHED PORTIONS OF THE APPROACH AND MISSED APPROACH ROUTINGS
ARE NEITHER DIFFICULT NOR DANGEROUS. ^{SAFETY ISSUE OCCURS} THE ~~DANGER COMES~~ ONCE THE AIRCRAFT
LEAVES THE APPROACH ROUTING WITH ITS BUILT IN SAFETY MARGINES AND BEGINS
TO MANEUVER VISUALLY *for landing.*

THE AIRPORT SITS BETWEEN MOUNTAINS IN A "HOLE" APPROXIMATELY FOUR MILES
IN DIAMETER. WITHIN THE "HOLE" ARE SEVERAL FOOT HILL AND MOUNTAIN SIDE
INCURSIONS RANDOMLY LOCATED AROUND THE AIRPORT. NONE OF THESE ELEVATED
AREAS ARE LIGHTED. THE VOR/DME-C APPROACH DELIVERS THE USER 0.9 MILES FROM
THE RUNWAY 15 THRESHOLD, 3025 FEET ABOVE THE AIRPORT. FROM THIS POINT
THE OPTIONS ARE: A LEFT OR RIGHT DOWN WIND ENTRY FOR RUNWAY 33 OR A 360
DEGREE DESCENDING TURN ONTO FINAL FOR RUNWAY 15. BOTH A MAP STUDY AND
DIRECT OBSERVATION OF THE TERRAIN INDICATE THAT A NORMAL 1000 FEET ABOVE
AIRPORT ELEVATION DOWN WIND LEG APPROPRIATELY SPACED FOR AIRCRAFT CATAGORY
OR A 1500 FEET ABOVE AIRPORT ELEVATION DOWN WIND LEG FOR TURBOJET AIRCRAFT
WOULD PLACE THAT AIRCRAFT 300 FEET OR MORE BELOW GROUND LEVEL AT SEVERAL
PLACES IN THE TRAFFIC PATTERN. THE ALTERNATIVE IS A STEEP, CLOSE IN PATTERN,
A CHALLENGING MANEUVER UNDER IDEAL CONDITIONS, HIGHLY DANGEROUS FOR THE
UNFAMILLIAR, UNPRACTICED PILOT IN CONDITIONS OF DARKNESS AND/OR REDUCED
VISIBILITY.

THE F.A.A. HAS A LONG STANDING POLICY THAT NEITHER AN AIRCRAFT NOR AN
APPROACH PROCEDURE SHOULD REQUIRE AN UNUSUAL DEGREE OF PILOTING SKILL.
SAFELY GETTING IN AND OUT OF THIS AIRPORT REQUIRES CERTAIN SKILLS NOT NORMALLY
PRACTICED BY MOST PILOTS AND ALSO FAMILIARITY WITH THE LOCAL TERRAIN NOT
POSESSED BY THOSE WHO DON'T FREQUENTLY OPERATE FROM THIS AIRPORT.

(2)

THE PRESENT POLICY IS SENSIBLE AND PRUDENT. IT SHOULD BE CONTINUED UNCHANGED.



U.S. Department
of Transportation

**Federal Aviation
Administration**

Memorandum

Subject: ACTION: Night Use of Aspen/Pitkin Co.
VOR/DME-C Approach

Date: October 26, 1990

From: Manager, Oklahoma City Flight
Inspection Field Office

Reply to
Attn. of:

To: Manager, Flight Procedures and
Inspection Division, AVN-200

Based on the Oklahoma City Flight Inspection Field Office's (OKC FIFO) experience operating at the Pitkin Co. Airport at Aspen, Colorado, the FIFO strongly recommends continuing the policy denying the general public night use of the VOR/DME-C approach to Aspen/Pitkin Co. Airport. The published portions of the approach and missed approach routings are neither difficult nor dangerous. The safety issue occurs once the aircraft leaves the approach routing with its built-in safety margins and begins to maneuver visually for landing.

The airport sits between mountains in a "hole" approximately four miles in diameter. Within the "hole" are several foothill and mountainside incursions randomly located around the airport. None of these elevated areas are lighted. The VOR/DME-C approach delivers the user 0.9 miles from the Runway 15 threshold, 3025 feet above the airport. From this point the options are: A left or right downwind entry for Runway 33 or a 360 degree descending turn onto final for Runway 15. Both a map study and direct observation of the terrain indicate that a normal 1000 feet above airport elevation downwind leg appropriately spaced for aircraft category or a 1500 feet above airport elevation downwind leg for turbojet aircraft would place that aircraft 300 feet or more below ground level at several places in the traffic pattern. The alternative is a steep, close-in pattern, a challenging maneuver under ideal conditions, highly dangerous for the unfamiliar, unpracticed pilot in conditions of darkness and/or reduced visibility.

The Federal Aviation Administration has a long-standing policy that neither an aircraft nor an approach procedure should require an unusual degree of piloting skill. Safely getting in and out of Aspen/Pitkin Co. Airport requires certain skills not normally practiced by most pilots and also familiarity with the local terrain not possessed by those who do not frequently operate from this airport. The present policy is sensible and prudent. It should be continued unchanged.


Larry L. Patterson

Attachment