

AOPA

**Cold Temperature Restricted Airport
SIAP Segment Depiction
16-01-302**

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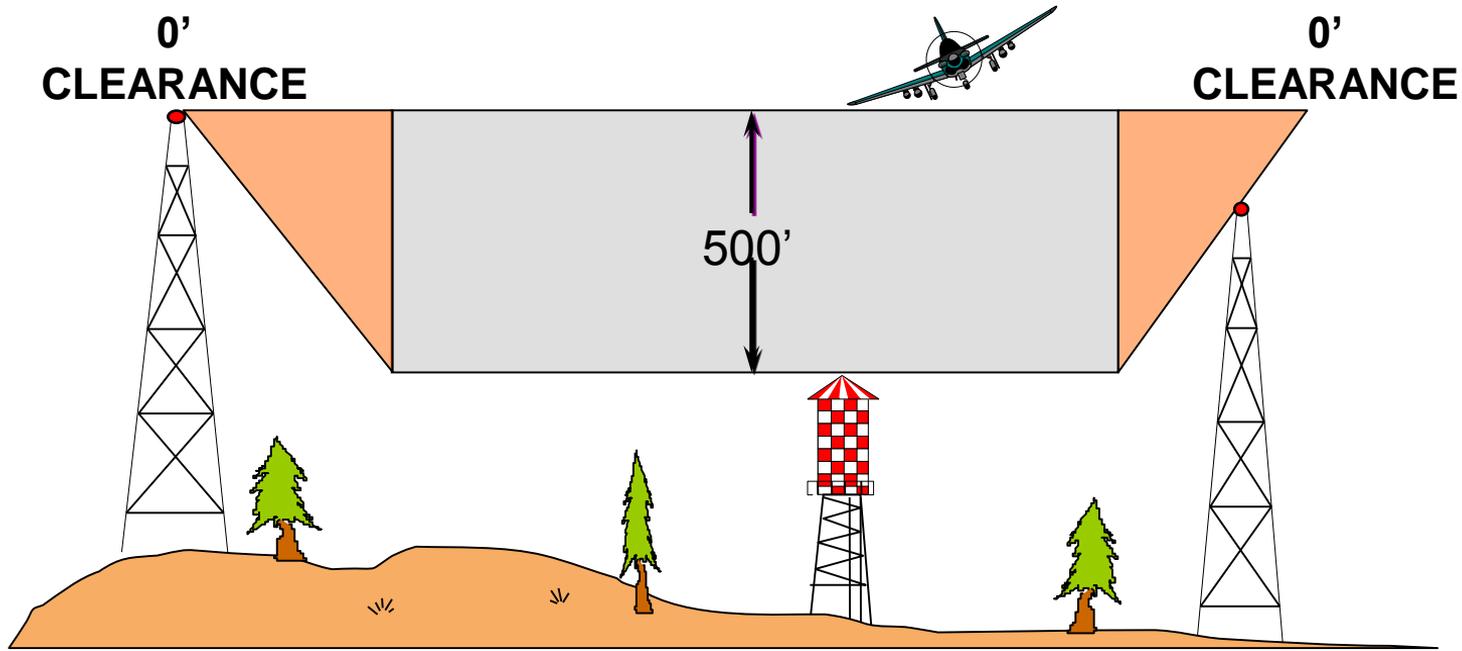


Cold Station Altimeter Settings

- Item 92-02-110 was closed at ACF 15-02 following the implementation of the Cold Temperature Restricted Airport (CTRA) procedure
- Altimeter error due to cold temperature
 - Barometric altimeters are inherently susceptible to errors when exposed to non-standard temperatures due to their being solely a pressure instrument
 - Cold air is denser than warm air so the altimeter will indicate a higher altitude than the aircraft's true altitude

Required Obstacle Clearance

- Problem was aircraft losing Required Obstacle Clearance on instrument approach procedures when very cold temperatures present



Current Procedure: Notices to Airmen Publication (NTAP)



- An IAP at risk is listed in the NTAP
 - Includes applicable segments requiring altitude correction
 - Temperature at which correction is required
- NTAP is issued every 28 days
 - Provided only in PDF form – not digital or useful for automation
 - AFS-470 reports CTRA list should be updated at least once every year
- NTAP is controlling document
 - Pilots must check it every 28 days in case there is a change to the CTRA list
 - No other NOTAM for the IAP is issued when there is a change regarding CTRA

Cold Temp - Restricted Airports

Notices to Airmen

Cold Temperature Restricted Airports

Cold Temperature Altitude Corrections

November 12, 2015

Subject: Cold temperature altitude corrections at airports with a published cold temperature restriction.

Purpose: To provide a list of 14 CFR Part 97 "Cold Temperature Restricted Airports" designated with a temperature restriction and guidance on when and how to calculate and apply altitude corrections to affected approach segments(s) during cold temperature operations. This list may also be found at the bottom of the "Terminal Procedures Basic Search" page:

http://www.faa.gov/air_traffic/flight_info/aeronav/digital_products/dpp/search/

Background: In response to aviation industry concerns over cold weather altimetry errors, the FAA conducted a risk analysis to determine if current 14 CFR Part 97 instrument approach procedures, in the United States National Airspace System, place aircraft at risk during cold temperature operations. This study applied the coldest recorded temperature at the given airports in the last five years and specifically determined if there was a probability that during these non-standard day operations, anticipated altitude errors in a barometric altimetry system could exceed the Required Obstacle Clearance (ROC) used on procedure segment altitudes. If a probability of the ROC being exceeded, west above one percent on a segment of the approach, a temperature restriction was applied to that segment. In addition to the low probability that these procedures will be required, the probability of the ROC being exceeded precisely at an obstacle position is extremely low, providing an even greater safety margin.

Current Charting



QUINHAGAK, ALASKA

		
	NA	Procedure NA at night.
		Baro-VNAV NA. DME/DME RNP-0.3 NA.
	-16°C/3°F	Use Platinum altimeter setting.

- Snowflake icon in notes box with temperature for first required correction
- Fahrenheit and Celsius provided



Pilot Feedback Regarding Charting

- Feedback on CTRA from general aviation pilots, particularly pilots based in northern states, is overwhelmingly negative regarding user-friendliness:
 - Issues as to the accessibility of information
 - Pilots must check the NTAP for changes
 - Document not normally referenced
 - No subscription to changes available
 - Presentation of information is disjointed
 - Not all information is on the approach plate or in the Terminal Procedures Publication, much is only found in NTAP



Recommendations

- Provide all temperatures and applicable segment(s) with snowflake icon on IAP
- Remove Fahrenheit; ICAO Cold Temperature Error Table is only in Celsius

QUINHAGAK, ALASKA

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		Use Platinum altimeter setting.
	-16°C/3°F	

		Procedure NA at night.
	NA	Baro-VNAV NA. DME/DME RNP-0.3 NA.
		Use Platinum altimeter setting.
	-16°C(IF)/-32°C(M)	

Other Recommendations



- Make procedure's Form 8260 controlling for CTRA as it is a chart note
- Issue a NOTAM for that IAP if there is a change in regards to CTRA (until chart is updated)
- Remove CTRA from NTAP – explanation of correction procedure need only be in the AIM