NAMIBIA CIVIL AVIATION AUTHORITY

Private Bag 12003 Windhoek Namibia | (Tel) +264 61 702 212 | Web: http://www.dca.com.na

Inspection of Altimeter Setting Source Form

The aircraft altimetry and height-keeping equipment must be maintained in accordance with approved procedures and servicing schedules.

Moreover, in view of the global agreement of vertical separation minimum between aircraft in different flight levels, it's imperative that height measuring equipment onboard the aircraft have to meet certain accuracy, it is on this premise that altimeters/ transponders have to meet certain standards and the demand for the accuracy of measurement

In the concept of Reduced Vertical Separation Minimum (RVSM) for example, the demand for accuracy for global height-keeping performance, which is more stringent, can be seen in the Manual on Implementation of a 300 m (1 000 ft) Vertical Separation Minimum between FL 290 and FL 410 Inclusive *(Doc 9574).*

Procedure for inspection

S/N	Items	Sub-items		Seen (s)/ Not Seen (NS)/ NA	
				Sat √	Not Sat √
1	Evaluation of an altimeter source for <u>initial approval</u> A) Facility location inspect	1.1	Ensure facility is maintained at a reasonably consistent temperature, free from drafts.		
		1.2	Ensure altimeter mounting precludes damage or mishandling, and is in a reasonably permanent location.		
		1.3	Ensure facility has established a known height above sea level +/- one foot that is marked on instruments or posted immediately adjacent to them.		
			Evaluate method to be used in communicating altimeter setting information to the pilot.		

	B) Station instruments inspection.		Ensure applicant has provided two aircraft type sensitive altimeters TSO requirements, as applicable		
			Ensure altimeters have been calibrated within 30 days by a Civil Aviation Approved facility.		
2	Evaluation to ensure that altimeter setting sources are transmitting accurate information and continue to meet regulatory requirements.	2.1	Audit the appropriate text procedures to assure system functionality after removal, replacement, or installation. (table below can be used as sample of testing MATRIX)		
		2.2	Inspect altimeter setting source facility (as in 1A)		
		2.3	Ensure altimeters meet required system tests and inspections **(NAMCATS43.02.7)**		
		2.4	Inspect records.		
		2.5	Determine station's capability to transmit data.		
3	Analyzes of the results of inspection	3.1	If inspection is unsatisfactory, debrief operator; require the discontinuation of operations.		
		3.2	Notify operator not to use altimeter setting source until discrepancies are corrected.		

<u>Note</u>: the inspector is not expected to insist on the table below but will audit the specific method being used by the operator/maintenance facility tor the calibration and setting of the specific equipment.

NAMCATS 43.02.7 specifically listed the standards that Altimeter system test and inspection must meet and inspectors are expected to see sample (s0 of this.

The table below however takes several factors into consideration such as; Static Source Error/Static Source Error Correction Relationships for Altimetry System Error Where Static Line, Pressure Measurement, and Conversion Errors etc. which may not be visible from the table below but incorporated into the flight test installation chosen to get the calibrated data that shall have an accuracy compatible with the level of performance to be demonstrated.

TEST ASSOCIATION MATRIX

The following table lists appropriate tests to assure system functionality after removal, replacement, or installation of altitude reporting equipment and transponder system components

			Seen (s)/ Not Seen (NS)/ NA	
COMPONENT	**DESCRIPTOR**	**TESTs**	Sat √	Not Sat √
Altimeter	Pilot reference.	1. Field elevation verification.		
		2. Correspondence test.		
		3. Static leak test.		
Altimeter	Pilot reference. Matched to encoder prior to installation	1. Field elevation verification.		
		2. Abbreviated correspondence test.		
		3. Static leak test.		
Altimeter	Other than pilot reference	1. Field elevation verification.		
		2. Static leak test.		
Encoding altimeter	Pilot reference.	1. Field elevation verification.		
		2. Abbreviated correspondence test.		
		3. Static leak test.		
Encoding altimeter	Other than pilot reference.	1. Field elevation verification.		
		2. Correspondence test.		
		3. Static leak test.		
Encoding altimeter	Other than pilot reference. Matched to pilot reference altimeter prior to installation.	1. Field elevation verification.		
		2. Abbreviated correspondence test.		
		3. Static leak test.		
Blind altitude encoder	Connected to transponder.	1. Correspondence test.		
		2. Static leak test.		
Blind altitude encoder	Connected to transponder. Matched to pilot reference altimeter prior to installation.	1. Abbreviated correspondence test. .		
		2. Static leak test		
Blind altitude encoder	Not connected to transponder.	1. Abbreviated correspondence test (Modified).		
		2. Static leak test.		
Combined static probe/air data computer	Installed as single component without opening static system.	Single indicated altitude and transponder pressure altitude correspondence verification.		

Transponder	High reliability style connector system.	Transponder test and inspection.		
Transponder	Non-high reliability style connector system.	1. Transponder test and inspection.		
		2. Abbreviated correspondence test.		

Inspector's Comment/ Recommendation		
Inspector's name	**Signature**	**Date**

Chief Airworthiness' Comment/ Conclusion		
Inspector's name	**Signature**	**Date**