

# Standard Calls for Flight Test Crews

## Introduction

In general, clear and concise communication is essential to ensure efficient test operations. The Test Director providing brief and meaningful feedback to the crew allows everyone to focus on the action rather than communication. All test crew members expect unambiguous and timely communication during test execution.

The use of standard calls helps eliminate confusion during critical points of the test sortie. While the list below is not exhaustive it does contain the most common standard radio calls. Additional test specific standard calls as required by THAs or test procedures should be briefed during the preflight brief.

The members of the MFTC put some effort into discussing the radio communication needs of flight test crews during flight test execution. There is a general agreement and recognition that creating a mutually agreed upon, non-binding standard as a basis for best practice test communications will provide value to those who choose to adopt it in some manner. Benefits such as improved safety, common training, and easier integration of new flight test personnel from other companies are all foreseen. It is also hoped that by sharing this standard, feedback for future improvements, and also inclusion as part of test school curricula may also be possible.

## Principle Concepts

1. Conciseness is important. Use single syllable words when able.
2. Repeat critical calls 3 times, to ensure the message is heard.
3. The value of standardized calls is to create a strong linkage between each call and the expected response for each test crew member.

## Background information

The following is an attempt to capture some of the logic and discussion behind why certain terms were selected over others, and any other additional information thought to be helpful beyond that which was able to be included in the table of standard calls.

1. Abort is preferred over Knock it Off, as it has less syllables, and is easier to repeat 3 times rapidly.
2. It is better to tell the flight crew to "standby" if further analysis is required versus saying nothing as the flight crew will not know why they are waiting for feedback, i.e. has TM dropped out, are they on the incorrect frequency, etc.
3. When talking with the crew over the radio the Test Director should remember that the flight crew also has ATC and other aircraft talking on the other radio and therefore needs to be cognizant of when it is appropriate, or inappropriate, to provide feedback.

**Table 1: Standard Calls**

Description	TM	Flight Crew
To either inform the flight crew that the aircraft is above/below the altitude at which chutes can be armed or acknowledge that the aircraft recovery chutes been armed or safed.	"Chutes Armed/Safe"	"Chutes Armed/Safe"
Called by TM when the current aircraft configuration does not match that required for the flight condition.	"Check configuration" or "Check [Flaps / Gear / Speedbrakes / etc.]"	
Call and challenge from TM or the flight crew to note that they are ready for the next test point.	"TM Ready"	"Test XX Ready"
Called by TM to have the flight crew either start or stop the data block	"Data On/Off"	
Used by either TM or the flight crew when they are not ready to proceed. When called by TM, the flight crew should maintain current configuration and speed.	"Hold"	"Hold"
Call from the flight crew to check trim point quality.		"Take Trim"
Call from TM to inform the flight crew that they are analyzing the requested data (trim check, test point, etc.)	"Looking"	
Used by either the flight crew or TM to count down to an input, or maneuver start. <i>Note:</i> release microphone and leave blank '1' count to allow for an abort call to be made.	"3,2, ____, Mark"	"3,2, ____, Mark"
Called by TM to inform the flight crew that they've completed their analysis and are ready to provide feedback on the most recent flight condition.	"Feedback Ready"	
Used by flight crew when TM has called feedback ready but is task saturated. Used by TM when the flight crew has asked for feedback but additional analysis or discussion is required. Note, it is preferable to reply with "Standby" vs. dead air so that the flight crew knows they've been heard.	"Standby"	"Standby"
Non-emergency call from TM to stop the current test point. The flight crew should pause the current test procedure but may remain stabilized at the current test speed if altitude permits.	"Stop Test"	
Call from TM to initiate recovery from maneuver, as part of normal test maneuver execution.	"Recover"	
Emergency call from TM to abort the current test point. The flight crew should immediately initiate recovery procedures to return the aircraft to the heart of the envelope. No additional discussion is required until the aircraft is back in a safe configuration.	"Abort, Abort, Abort"	
Call from TM to immediately push the aircraft nose over and accelerate. Generally used during stall testing when the aircraft has exceeded a knock it off AOA	"Push, Push, Push"	
Test condition has started.	"On condition"	"On condition"
Call from TM denoting that the data has been collected and the flight crew can return the airplane to the trim condition or proceed to the next point on the test card.	"Condition complete"	
This call requires prior coordination between TM and the flight crew during any flight brief where aircraft recovery chutes are employed. With the agreement of TM and flight crews if the aircraft is out of control either TM will make a bailout call when the aircraft reaches the bailout altitude or TM will provide altitude callouts every 1,000 ft when the aircraft is descending out of control.	"Bailout, Bailout, Bailout" or Altitude callouts	