NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Western Pacific Region

January 12, 2022

CONTROL LOCK STUDY

WPR21FA283

This document contains 3 embedded photos.

A. ACCIDENT

Location:	Lewiston, Idaho
Date:	July 24, 2021
Aircraft:	N28U, SIAI-Marchetti, SM1019B
NTSB Investigator-in-Charge:	Andrew Swick

B. ACCIDENT SITE AND WRECKAGE EXAMINATION

Examination of a similarly equipped SIAI-Marchetti, SM1019 revealed that with the control lock engaged (See figure-1), although the ailerons and elevators were completely locked, the rudder could still be moved to almost full travel, such that the airplane could be maneuvered almost completely unhindered while taxiing (figure 3, 4).

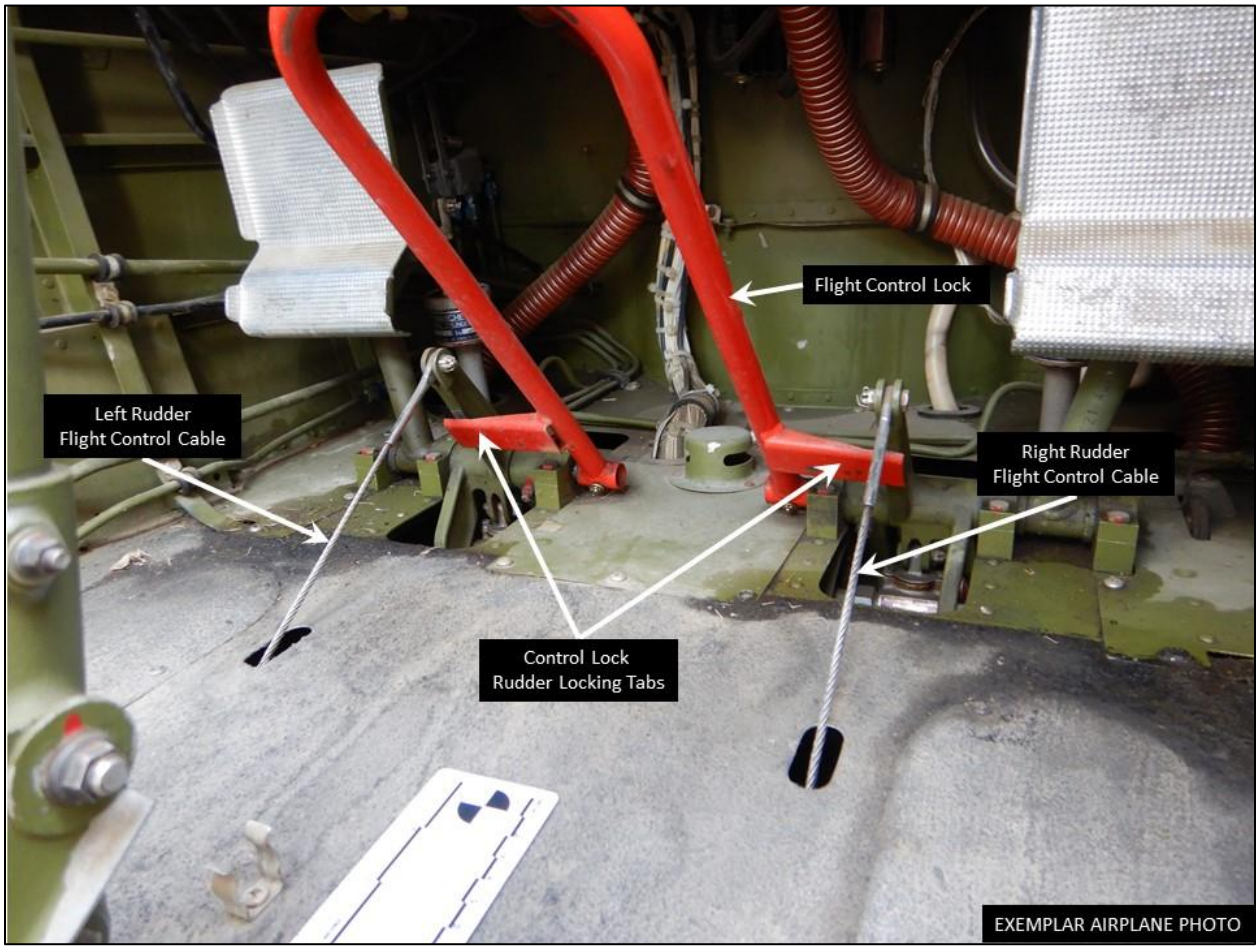

Figure 1-Flight control lock in the up position.

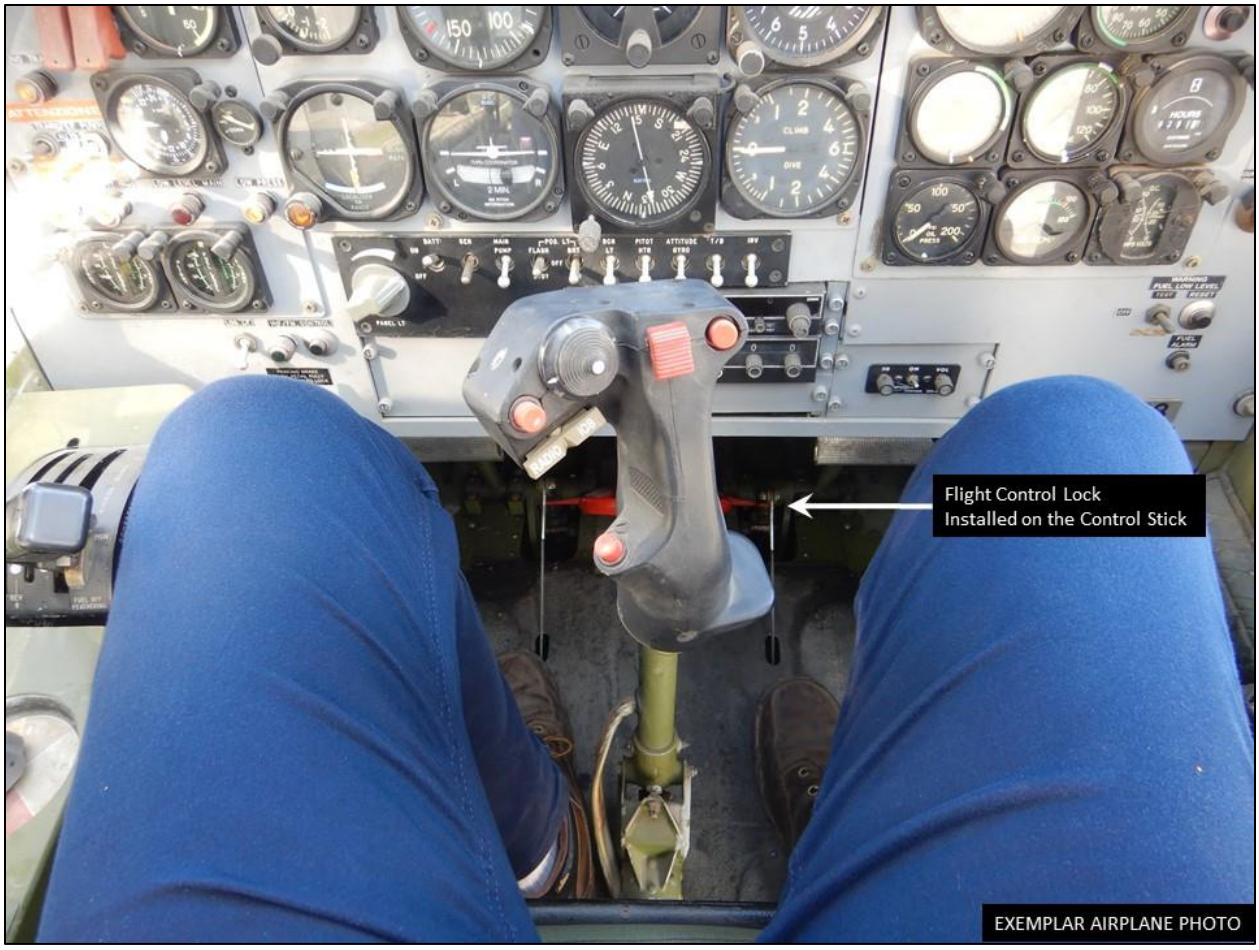

Figure 2-View of the control lock from the pilot's position.

Although the control is painted red, the pilots view of the lock in the engaged position is such that the lock is viewed at its narrowest profile, directly down its length. (Figure 2)

Figure 3-Exemplar airplane, right rudder without the control lock installed and with the control lock installed.

The airplane did not have the tail wheel chains connected for this test.

Figure 4-Exemplar airplane, left rudder without the control lock installed and with the control lock installed.

Submitted by: Andrew Swick