



RECORD OF COMMUNICATION

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Western Pacific Region

Date: February 9, 2017
Person Contacted: Mr. Rick Duncan (Airborne Aircraft Rep)
NTSB Accident Number: WPR16FA086

Narrative:

The following is a verbatim extract of an email Q&A exchange between the NTSB (Questions, in black) and Mr. Duncan (Responses) on this date:

Hi Rick

A few more questions re this aircraft (XT 912 with SST wing).

Im trying to do some rough rolling moment calculations for a possible vortex encounter, and I am looking for data on the wing left & right 'tilt' limits.

Ive gone through the POH & XT & SST maintenance manuals, and i don't see any references to how much the wing can be 'tilted' (rolled left or right relative to the carriage) either when on the ground or in the air.

The wing is limited in roll when on the ground by the tip hitting the ground. There are no physical "stops".

- a) Are there any hard stops (ie rigging limits) to the wing roll angle? No
- b) Or is the wing intentionally and essentially not really limited in its roll angle, but moreso practically governed/limited by either how far the pilot can laterally displace the control bar, or by airloads/turning radii while airborne? The wing roll rate is limited by pilot strength. The more and faster the wing is rolled the higher the pilot input therefore there are no stops required
- c) If the answer to question 'b' is that the wing is limited by pilot reach/strength considerations, or airloads/turning radii, can you please give me some sense of what those limits are (either in degrees deflection, or lateral displacement of the

control bar)? Yes the wing is limited by pilot reach/strength. Once the turn is initiated the base is forced to the outside of the turn stabilizing in a bank.

To give you a feel for the controls a 1 ft control deflection in roll would generally be the maximum. Normal deflection required to control in moderate turbulence would be around 6 inches