

**22nd MEETING OF THE
INFORMAL SOUTH PACIFIC AIR TRAFFIC SERVICES COORDINATING GROUP
(ISPACG/22)**

(Papeete, Tahiti – 12-14 March 2008)

Agenda Item 3: Review Relevant Work Conducted Since ISPACG/21

Speed Control Allowance

Presented by Len Wicks, Civil Aviation Authority of NZ

SUMMARY

This Information Paper provides an update on the work by the Separation and Airspace Safety Panel (SASP) in considering the issue of allowable speed variation.

1.0 Background

- 1.1 WP 25 was presented by New Zealand at ISPACG/21, regarding Variation in Speed. In light of the reduced longitudinal separation standards currently employed in the South Pacific, the Airways Corporation of New Zealand proposed that the maximum variation that aircrew can employ without advising ATC, be reduced. Over the last decade the use of CPDLC and ADS has allowed a significant reduction in the longitudinal separation standards applied between aircraft on the same track, with frequent use now made of both the 50nm and 30nm longitudinal standard. Despite this, the Annex 2 variation in speed that pilots are permitted to undertake without advising ATC has remained at 5 %.

ISPACG/PT2 was tasked with progressing the issue by reviewing the Annex and clarifying the intent and to make recommendations that can assist SASP in its deliberations.

2.0 Discussion

- 2.1 The following excerpt is taken from the SASP 12 (SASP-WG/WHL/12/SD) Final Report to clarify the discussion presented to SASP and on-going work regarding this issue.

2.13 Mr Wicks presented WP/29 in which the issue was raised of the 5 per cent variation of true airspeed from flight plan, allowed for in Annex 2, was being misinterpreted by some operators as the permissible tolerance from that specified in the flight plan without notifying ATC. The meeting was reminded of information provided by Mr Wicks at the last meeting of SASP, and he informed the meeting that the Informal South Pacific ATS Coordinating Group (ISPACG) had recently discussed this issue with general agreement being reached that a new metric should be proposed and that a variation metric of up to 0.02 Mach might be more acceptable to aircraft operators and ATS units than using a percentage like 2 per cent. WP/29 proposed that the SASP consider development of a new metric for inclusion in Annex 2, Chapter 3.2.6.

- 2.14 *Mr Colamosca commented that the paper is very helpful in trying to find a resolution to this issue, and identified that the FAA had similar issues identified during trials for their 30/30 implementation. He noted that the issue for the Pacific airspace is that Annex 2 refers to inadvertent speed changes whereas the speed changes being seen in the Pacific appear to be planned. Mr Walton commented that on Boeing aircraft there is a cruise mode called Econ which bases air speed on calculations set by the operator dependent on fuel burn and other variables to achieve best economic cruise. The experience is that as the aircraft becomes lighter, the cruise speed decreases and some airlines are using Econ as their cruise speed technique. He advised the meeting that in his experience generally assigned Mach numbers were set in the Mode Control Panel as the aircraft can fly this more accurately.*
- 2.15 *Mr Wicks then stated that the definition of 'inadvertent' indicates that on the basis of what Mr Walton has said, 90 per cent of speed changes are not inadvertent. Mr Flax advised that the only Math issue relative to the problem detailed in the paper is an assumption by Dr Anderson in the collision risk model of a speed differential. However Mr Flax said that he did not think there was any assumption of planned variations in the modelling or that we would necessarily distinguish between these types of variations. Mr Wicks then enquired if the United States trials had identified any outcomes that might provide guidance in developing a new speed variation metric. Mr Colamosca advised the meeting that the FAA had not been able to complete an analysis of their trial results but would be happy to share any information once that is complete. Additionally Mr Colamosca informed the meeting that the United States would be pleased to provide a working paper to the next meeting that makes a proposal to change the Annex requirement on the basis of their trial data. This offer was gratefully accepted by the meeting.*

3.0 Recommendation

- 3.1 ISPACG participants are invited to note the current progress by SASP on this matter.