

# Penny & Giles – Product Support

Document Number : PS1259  
 Revision / Date : 4 / August 23, 2011  
 Document Title : Recording Capacities in Flying Hours  
 Equipment Affected : OQAR & PQAR  
 Part Numbers : D52000-XXXXX  
 Classification : Information

## Introduction

The Optical Quick Access Recorder (OQAR) will use either a 128MB or 230MB Optical Disk and record onto the disk the ARINC 573/717 flight data sent to the OQAR by the aircraft's Flight Data Acquisition Unit (FDAU).

The PQAR can use a PCMCIA card of 128MB, 256MB or 1GB storage capacity.

This document details the recording duration that can be expected for the various OQAR/PQAR variants and the different media sizes used.

**Table 1 – OQAR Recording Duration.**

OQAR Part Number	Data Rate	Recording Hours	MB Per Hour (Note 1)
D52000-4X0XX and D52000-6X0XX (128 MB OQAR)	64 words per second	> 359	0.346
	128 words per second	> 179	0.692
	256 words per second	> 89	1.382
	384 words per second	> 44.5 (Note 2)	2.074
	512 words per second	> 44.5 (Note 2)	2.765
	1024 words per second	> 22.2	5.530
D52000-4X2XX and D52000-6X2XX (230 MB OQAR)	64 words per second	> 655	0.346
	128 words per second	> 327	0.692
	256 words per second	> 163	1.382
	384 words per second	> 81 (Note 2)	2.074
	512 words per second	> 81 (Note 2)	2.765
	1024 words per second	> 40	5.530

- Notes:
1. Flight Data Acquisition units may be sending flight data to the OQAR up to 30 minutes prior to and following the scheduled flight (gate to gate time), therefore a 10% allowance must be made for this contingency. Therefore a 10 hour flight may consume 11 hours of disk space.
  2. Due to the data recording format adopted by the OQAR, data recorded from both 384 and 512 Words per Second sources will occupy the same amount of space on the optical disk.

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- The optical disk capacities detailed here are quoted assuming that no recording is taking place from either the RS422 Message Data Recording interface, or the A429 Data Recording Interface. If data is recorded onto the optical disk from the RS422 or A429 interfaces then the A573 recording capacity will be reduced accordingly.

**Table 2 – PQAR Recording Duration**

<b>ARINC 573/717 Data Rate</b>	<b>128 MByte Card</b>	<b>256 MByte Card</b>	<b>1 GByte Card</b>
64 words per second	> 370 hours	> 740 hours	> 2960 hours
128 words per second	> 185 hours	> 370 hours	> 1480 hours
256 words per second	> 92.5 hours	> 185 hours	> 740 hours
384 words per second	> 61.6 hours	> 123 hours	> 492 hours
512 words per second	> 46.2 hours	> 92.5 hours	> 370 hours
1024 words per second	> 23.1 hours	> 46.3 hours	> 185.2 hours

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