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DoD Instrumentation Grant AFOSR 86-0287 has provided total funding of \$53,475 distributed over a two-year time interval: \$34,790 for year one (8/1/86 thru 7/31/87) and \$18,685 for the final year (8/1/87 thru 7/30/88). This report summarizes all expenditures that have been made under this grant.			
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To: Dr. J. Tishkoff
AFOSR/NA

Date: October 20, 1988

From: A. J. Kelly

Subject: Final Report;
DoD Instrumentation Grant
AFOSR 86-0287

Final Report

DoD Instrumentation Grant: AFOSR 86-0287

DoD Instrumentation Grant AFOSR 86-0287 has provided total funding of \$53,475 distributed over a two-year time interval: \$34,790 for year one (8/1/86 thru 7/31/87) and \$18,685 for the final year (8/1/87 thru 7/30/88). This report summarizes all expenditures that have been made under this grant.

As noted in our previous annual status report, contrary to initial expectation it has been possible to obtain the Nicolet digital oscilloscopes for substantially lower cost than planned thus freeing funds for the purchase of additional instrumentation. Table I summarizes all acquisitions that have been made under the grant to the end of July 1988 with a detailed breakdown of the Nicolet oscilloscope purchases included as Appendix A. All of this instrumentation is in daily use in the Electric Propulsion laboratory.


Sr. Research Engineer

AJK:YK

cc: Capt G. Rosalia, AFOSR
K. Strine, Princeton University

TABLE I
Summary of Expenditures
Instrumentation Grant AFOSR 86-0287
Period 8/1/86 to 7/31/87 - Extended to 7/31/88

<u>Date</u>	<u>Vendor - Item</u>	<u>Cost</u>	<u>Grant Balance</u>
			34,790
6/30/86	SPEX - Spectrograph	21,600	13,190
7/2/86	Nicolet - Digital Oscilloscope	4,556	8,634
9/10/86	Magnavox - Camera	770	7,864
9/11/86	Gran. Philips Pressure Gauge	715	7,149
10/21/86	Magnavox - Tape System	499	6,650
10/21/86	Magnavox - Monitor	280	6,370
	Funds Added 8/1/87 (18,685)		25,055
8/28/87	Tektronix Differential Amplifier	2,050	23,005
8/28/87	Harshaw Power Supply	835	22,170
9/3/87	Keithley - Digital Data Collection	2,385	19,785
9/10/87	Nicolet - Digital Oscilloscope	8,886	10,899
10/5/87	AT&T 6300 Computer	1,605	9,294
10/14/87	Screen Shooter - Camera	175	9,119
11/10/87	Instant Imagery - Software	2,395	6,724
12/16/87	Nicolet - I/O Interface	880	5,844
12/18/87	ITC 400 - Camera	230	5,614
12/18/87	Kepeco - Power Supply	723	4,891
1/25/88	Tektronix-Differential Amplifier	2,075	2,816
2/24/88	Textronix - Probes	800	2,016
3/25/88	Cyber Research - Software	395	1,621
4/6/88	ITT - Thyatron	365	1,256
4/28/88	Omega - Thermocouple	249	1,007
6/1/88	AST - Stepper Motor	358	649
6/1/88	Setra - Pressure Gage	375	274
6/15/88	Burr Brown - Integrators	324	-



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Justification	

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Appendix A

"Nicolet" Line Items

Proposal Cost Estimate

Year One	Nicolet	#2090-3A: Mainframe	\$ 4,900
		#845-000205: Plug In	6,900
		#2082 (2 units):	1,590
		RS232 Interface	
Year Two		#2090-3A: Mainframe	4,900
		#885-003500. Plug In	<u>4,300</u>
			\$22,590

Actual Purchase

7/2/86		#2090-3A (20%)	3,920
7/2/86		#2082 (1 unit) (20%)	636
9/10/87		#2090-3A (10%)	4,410
9/10/87		#845-000205 (20%)x(20%)	4,456
12/16/87		#2082 (1 unit)	<u>880</u>
			\$14,302
3/27/86*		#885-003500 (33%)x(40%)	1,740

* Purchased prior to release of funds to take advantage of a highly discounted sale offering.