

REC/NE/06

Washington Area Next Generation Internet Recurring Costs

FY 2005 Proposal to the NOAA HPCC Program

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| [Title Page](#) | [Proposed Project](#) | [Budget Page](#) |

Principle Investigator: **John Kyler**

Line Organization: USEC HQ

Routing Code: CIO-OPS1

Address: National Oceanic & Atmospheric Administration
SSMC3 Room 5505
1315 East-West Highway
Silver Spring, MD 20910

Phone: (301) 713-9459 x199

Fax: (301) 504-9800

E-mail Address: John.C.Kyler@noaa.gov

Co-Investigator: Gary L. Falk
(NOAA / OFA)
Gary.L.Falk@noaa.gov

Primary Theme: (Next Generation Internet)

Funding Summary:

John Kyler
Network Engineer

Gary L. Falk
Director, IT Operations

Washington Area Next Generation Internet Recurring Costs

Proposal for FY 2005 HPCC Funding

Prepared by: [John Kyler](#)

Executive Summary:

Beginning in FY2000, HPCC has funded establishment of a NOAA corporate membership in, and connectivity to, the Next Generation Internet (NGI). When the dark fiber build-outs were completed at the beginning of FY04, a metropolitan area network capable of gigabit data rates linked the Silver Spring Metro Center complex and facilities in Suitland, Camp Springs, and Bowie to the University of Maryland and Goddard Space Flight Center. This network has recurring costs both for lease of the installed fiber and for NGI port access fees at the University of Maryland.

In accordance with a special exception to HPCC policy, this proposal seeks funding for these recurring costs *in full*. The annual fiber leasing fees are a constant function of distance and number of leased segments.

Problem Statement:

NOAA has performed upgrades of internal network facilities at sites in the Washington, D.C. area to provide infrastructure capable of supporting NGI and has taken the first steps to connect to the NGI. These upgrades have been funded through prior year's HPCC projects (See: [Making Silver Spring NGI Capable](#), [Connecting Washington, D.C NOAA Sites to Next Generation Internet](#), [NOAA Corporate Membership Proposal](#), and [A NOAA / NGI Washington Metropolitan Area Network](#)). The use of NGI by NOAA has grown remarkably since the initial startup project. New opportunities, such as the ability to distribute Climate Reanalysis results and the NEXRAD Level II radar data have recently emerged. This project proposal requests funding for the recurring costs associated with the Washington Area Next Generation Internet Connection.

Analysis:

Costs for fiber runs are summarized below. This network provides continuing dark fiber connectivity between NOAA and the University of Maryland at College Park, with continuing access to the NGI Abilene Network via the UMCP portal. Table 1 shows the annual costs for each segment in the network. This solution will provide Gigabit / second connectivity among NOAA sites in the Washington, D.C. metropolitan area. These data rates allow for advanced QoS related protocols and applications. Continued connection to UCAID Abilene GigaPoP will provide very high bandwidth connections to the University research community and allow for advanced collaborative research projects.

Table 1: Cost Table for Dark Fiber

Fiber Segment	Annual Cost	FY05 Request
SSMC - UMCP (two pair)		
WWB - UMCP		
Suitland FOB4 - UMCP		
Grand Totals:		

Milestones

- Month 01 - Place orders for necessary service.
- Month 12 - Project completion.

Deliverables

- One year lease of two dark fiber segments between SSMC and UMCP
 - One year lease of one dark fiber segment between UMCP and WWB
 - One year lease of one dark fiber segment between UMCP and FOB4
 - One year access to NGI on Abilene Network via UMCP Gigapop (MAX)
 - One year collocation rack space at the MAX
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