

# NO BOUNDARIES

*NCS designed and built a hardened and transportable high-performance workstation to enable the U.S. Air Force to conduct flight mission planning at any location—from remote airfields to established air bases, at any time.*



*The Air Force F-22A Raptor*

From a F-22A Raptor executing a combat mission to a CV-22 Osprey delivering Special Operations forces into hostile territory, every mission requires a flight plan outlining the authorized targets, how munitions or cargo are to be delivered, fuel requirements and the optimal flight route based on factors such as known adversarial threat positions and types.

The U.S. Air Force was looking to supply their mission planners with a transportable mission planning workstation with specific and expansive capabilities and all of its peripherals. Not only did this system have to be able to withstand harsh environmental conditions, it had to be installed and uninstalled at a moment's notice. The U.S. Air Force then turned to NCS to design and build these systems as well as instituting a repair/replacement system with no geographical limitations.



**U.S. AIR FORCE**

## **CUSTOMER**

The United States Air Force  
<http://www.airforce.com/>

## **PROJECT**

The Transportable Flight Mission Planning System

## **CHALLENGE**

Planners needed to be able to safely transport and deploy their customized mission planning support workstation, with access to rapid and reliable repair services.

## **SOLUTION**

NCS designed a hardened workstation with the configuration required by the Air Force and a rugged transit case to house it and other necessary accessories. NCS then deployed a logistics infrastructure to provide repair services for the equipment no matter where the mission planners take them.

## **BENEFITS**

Air Force mission planners can now easily and securely transport their systems to any location in the world, unpack and install it, use it to plan their missions and quickly repack it for the next destination. They also have the security of knowing that if the workstation needs to be serviced, repair or replacement will quickly and efficiently be provided regardless of where they are deployed.



*Sharply Focused. Quality Driven.*



A view of the customized case.

## HARDWARE

- A Gemini CM4 Desktop
- 20" LCD Display
- Two Removable Hard Disk Drive Enclosures
- Optical Drive
- Mouse
- Keyboard
- Customized Rugged Carrying Case

## SERVICES

Each system comes with a three-year warranty. Next day on-site repair service is required for both CONUS and OCONUS locations. Replacement systems must arrive the next day for remote OCONUS locations.

## CUSTOMIZED MOBILITY

The U.S. Air Force called for the delivery of 1,050 systems with advanced configurations comprised of an Intel® Core™ 2 Duo (2.6 GHz CPU, 2 GB of DDR2), two advanced video graphics adapters, two removable hard disk drives, one optical drive, two PCMCIA slots, a CAC reader and a host of I/O ports such as a external SATA and SCSI, USB 2.0 and FireWire. Input and output devices for the system included a keyboard, mouse and a 20" LCD display. The system and accessories had to be packed securely into a ruggedized transit case. The case and the devices it housed had to be able to survive the effects of shock and vibration while being transported and dropped into combat areas. The workstation itself was designed to resist the penetration of dust and moisture and be equipped with adequate cooling for operation in high temperatures.

In early 2008 NCS built, integrated and

delivered the entire order of 1,050 systems three months ahead of schedule.

## GLOBAL SERVICE & SUPPORT

Air Force personnel carry their equipment wherever their missions take them, which means the Transportable Flight Mission Planning System can be deployed and put to use anywhere in world. NCS provides next day on-site repair services for both the Continental United States (CONUS) and outside the Continental United States (OCONUS) locations. For those locations that are considered remote OCONUS (i.e. far from permanent Air Force installations) NCS provides next day replacement service. Replacement systems or repair parts are sent from the closest of NCS's many strategically located repair depots.

The mobile deployment of the workstations requires meticulous planning

on the part of NCS in order to provide next-day service. NCS works closely with the Air Force to provision spare systems and parts following the footsteps of deployment.

"The design and deployment of the Transportable Flight Mission Planning workstation epitomizes our capabilities and expertise – superb engineering, flawless manufacturing, and sound program management," states An Nguyen, President of NCS Technologies. "The smooth execution of the project required all three elements to work and work well in tandem. The result was on-time delivery, hardware functioning as designed, impeccable reliability, and support service that is beyond reproach. We are very proud of this accomplishment. It is going to be recorded in the annals of the many spectacularly successful projects that we have undertaken to date for our customers."

# NCS Technologies, Inc.

7669 Limestone Drive, Gainesville, VA 20155 1 (888) RING-NCS  
<http://www.ncst.com/>

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**U.S. AIR FORCE**

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