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**PLA Air Force Command &**

**PLA Air Force Logistics Department**

**(Request for Approval)**

Command

Signed by Yang Guohai

Communication [2007]

Reviewed by Zhu Hongda

No. 115

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**Submitting the Project Design Task Plan of the  
Construction of Communication and Command-  
and-Control System of the Nanjing Military  
Region Air Force Underground Command Post  
by the Air Force**

**English translation is for reference only,  
please refer to the original Chinese version for any discrepancies**

General Staff, General Logistics Department:

According to the instruction spirit of General Staff Communication [2007] No. 433 "Assign the First Batch of Battlefield Communication Facilities Construction Projects of 2007", combined with the Air Force's anti-"Taiwan Isolation" emergency combat preparation tasks, and by sorting out the operational requirements of the communication and command-and-control system of the Nanjing Military Region Air Force underground command posts, the construction project design task plan is hereby submitted.

This communication system construction project mainly includes: infrastructure construction such as optical (electrical) transmission, satellite, and short-wave communication, application network construction such as program-controlled (manual) switching and video conference, and other supporting projects including communication power, etc. The command-and-control system construction project

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mainly includes: integrated wiring, display control and network equipment installation in the command posts. After the above tasks are completed, they can be interconnected with other systems in the region according to the requirements of the integrated command platform to meet the needs of combat command. According to the calculation, the above-mentioned construction projects will require a total construction expense of 47.28 million yuan.

Please give instructions on whether this plan is appropriate.

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Attachment: The Project Design Task Plan of the Construction of Communication and Command-and-Control System of the Nanjing Military Region Air Force Underground Command Post

PLA Air Force Command &

PLA Air Force Logistics Department

November 3, 2007

The Project Design Task Plan of the Construction of Communication and Command-and-Control System of the Nanjing Military Region Air Force Underground Command Post

1. Project name: Construction of Communication and Command-and-Control System of the Nanjing Military Region Air Force Underground Command Post.
2. Project code: 2705.
3. Construction location: Nanjing Baohua Mountain.

4. Construction Basis: General Staff Department's General Staff Communication [2007] No. 433 "Assign the First Batch of Battlefield Communication Facilities Construction Projects of 2007" and the combat tasks and combat plans undertaken by this underground command post.

5. Construction purpose: Through the construction of this project, the Nanjing Military Region Air Force underground command post will have communication and command-and-control functions such as the transmission, processing, exchange of data, voice, and image information and short-wave transmitting and receiving, to provide stable, reliable and uninterrupted command means for combat command.

6. Construction scope and contents:

a. Communication system construction

**The construction of command post communication hub:** install one program-controlled 1024 switch, one ATM data switch, one digital security switch, one AI powered switch, one command and dispatch system, and one video conference system; install one

satellite mobile cabin station, 10 PCM access devices, one ODF, one DDF, one MDF, and 2 sets of supporting equipments including rectifier power system, battery pack, UPS power supply, etc.

**The construction of receiver station:**

Install ten 1000W shortwave adaptive receivers, twenty 400W shortwave adaptive receivers, one centralized receiving console, and thirty shortwave integrated service terminals; set up nine receiving antennas of various types and eight Antenna splitters; and lay 6 kilometers of cables. Install one set of short-wave broadband optical fiber transmission equipment. Build one new lightning protection and grounding system for the antenna field. Install two AC power distribution cabinets.

**The construction of transmitter station:**

Install ten 1000W shortwave adaptive transmitters and twenty 400W shortwave adaptive transmitters, set up twenty-nine transmitting antennas of various types and two sets of antenna switching systems, lay 15

kilometers of cables; install one set of 622Mb/s optical transmission equipment and two sets of PCM access equipment; install five sets of short-wave broadband optical fiber transmission equipment; build one new lightning protection and grounding system for the antenna field, and install two AC power distribution cabinets.

**Construction of optical cable lines:** Lay 110 kilometers optical cables connecting the newly-built transmitting/receiving stations with the underground command post, the Nanjing Air force Base Command, the Baohuashan Maintenance station of the Nanjing Military Region, and the local civil telecommunication optical cables.

a. Command and control system construction  
About 52,000 meters of shielded twisted-pair cable, 8,000 meters of metal line pipe, 71,400 meters of video and audio cable; 1,500 sets of corridor trunking, 68 sets of wiring boxes, 1 fiber optic patch paneling, 1 set of voice

wiring, 800 information modules, 100 floor-mounted optical outlet, 7 sets of wiring cabinets, 2 sets of UPS power supply, 1 set of wiring management system; 1 item of power supply for lead-in equipment; 1 set of special connectors, test instruments and construction tools 4 sets; installation of special network, display control and security equipment for the Air Force; system integration 1.

7, Warfare technology requirements: through the construction of the project, requires new multi-route military optical cable to the local telecommunications company dispatch line optical cable, and open the main tunnel optical transmission system, the system capacity of not less than 10G; new short-wave transceiver, transmitter station and other communication and control system. After the completion of the system, the southern air ground command post shall be equipped with communication and command and control functions such as data, voice, image information transmission, processing, exchange and shortwave communication, so that it



can provide stable, reliable and uninterrupted command means for combat command.

8, Estimated budget: the total construction cost is estimated to be 47.28 million yuan. Among them, the command post communication hub construction 11.15 million yuan; short-wave receiving station construction 3.06 million yuan; short-wave transmitting station construction 11.88 million yuan; route line construction 7.45 million yuan; command & control system construction 8.54 million yuan; other construction costs 2.4959 million yuan; preparatory costs 2.251 million yuan.

9, Organization and implementation: the construction of the supporting communication and command control system of the South Air Ground Command Post is organized and implemented by the Communication Department of the Air Force Command, the Communication Engineering Design Institute of the Air Force Command is responsible for the design, and the units under the Air Force of Nanjing Military Region are responsible for the construction.

10, Schedule: construction drawings will be completed by the end of December 2007, construction will begin in January 2008, and project construction will be completed in March 2008.

Attachment: The Project List of the Construction of Communication and Command-and-Control System of the Nanjing Military Region Air Force Underground Command Post

Key words: Communication, Command-and-control, construction projects [Nanjing Military Region Air Force Underground Command Post]

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CC: Operations Department and Communication Department of General Staff; Finance Department of General Logistics Department; Operations Department and Communication Department of the Air Force Command; Finance Department of Air Force Logistics Department. (9 copies in total)

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