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Presentation by the Regional Center of the Far Eastern Federal District for Prevention and Control of Forest Fires

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Pursuant to the resolution of the joint meeting of the Ministry of Natural Resources of Russia, the Ministry for Emergency Situations of Russia, the executive staff of the Authorized Representative of the President of the Russian Federation in the Far Eastern Federal District and the executive authorities of the constituent entities of the Russian Federation, by Ordinance No. 263-R of the RF Ministry of Natural Resources dated 19 June 2003 the Far Eastern base for aerial forest protection has been charged with the responsibility for day-to-day gathering and processing of information on forest fires and inventory of forest fire control resources. In connection with the above resolution a Regional Center of the Far Eastern Federal District for the Prevention and Control of Forest Fires (hereinafter, the "Center") was set up at the airbase.

Aerial protection of forests in the Far Eastern Federal District is effected over an area of 256.56 million hectares (ha) by the means and facilities of seven regional airbases (Yakutia, Amur, Far Eastern, North Eastern, Primorje, Kamchatka, Chukotka) and the Sakhalin aviation unit. Around 2500 forest fires break out on average in this region every year, affecting an area of some 800,000 ha. An average of 10.4 fires occur per 1.0 million ha of protected timberland.

The need for establishment of a center for coordination of response and mobilization of fire control resources has long been felt and it is a must under the existing economic conditions. Certain difficulties for movement of the means and resources by air are due to the time difference with Moscow (Pushkino base), necessitating routine decision-making before the central airbase starts functioning. The resources at the disposal of the federation constituent entities of the Far Eastern Federal District are sufficient only in the event of small-scale fire intensity, while additional forces have to be employed at short notice in the event of medium- and emergency-scale fire intensity. In 2003 the number of those employed in the Airborne and Landing Fire Service (ALFS) was 986, of which 318 were employed on a contractual basis. These are the forces which can at present be realistically manoeuvred within the district. In accordance with standard requirements, the ALFS force shall be 860 strong in the event of small-scale fire situations, 2650 strong in the event of medium-scale fire situations and 5560 strong in the event of large-scale fire situations. The employees of the forest protection service are also involved in controlling forest fires only in the areas of responsibility of the respective forestries. For better fire protection of the forests, it is planned to increase within the framework of the center to be established the ALFS strength, to create a mechanized unit and an air squadron to provide for prompt delivery of human resources and equipment to the forest fire fighting areas in the territory of the Far Eastern Federal District.

The center will provide for satellite monitoring and forecasting of forest fire situation in the territory of the district, as well as coordination of the activities of forest fire services of the Far Eastern Federal District for prevention and suppression of forest, forest and peat and tundra fires.

The present staff of the center is as follows:

- Chief, operations and control (O&C)
- Two shift supervisors
- Two electronic engineers
- One photo and video operator (mass media liaison)

In addition, it is intended to employ two controllers (during the fire-hazardous period the center will function on a round-the-clock basis) and one specialist for assessment of meteorological information and forecasting of forest fire situation.

Information on forest fires will be submitted in accordance with the established format on a daily basis to the executive staff of the Authorized Representative of the RF President, the Department of State Supervision and long-term development in the sphere of use of natural resources and environmental protection for the Far Eastern Federal District (at three addresses), the Far Eastern Regional Center for Civil Defense and Emergency Situations, the Central Department of the Interior for the Far Eastern Federal District.

The Far Eastern Airbase has worked out a program for inventory of human resources of the airbases in the district, technical means and aircraft. A process of gathering information on the availability of the means and resources of land mobile forest protection forces has been initiated. The center will provide for communication over the Internet via a radio channel (at the transmission speed of 256 Kb/s). Use will be made of a single global IP address, with a modem link used as a standby communication channel.

For day-to-day weather analysis and forecasting of forest fire situation, the center will receive all necessary meteorological information from the Hydrometeorological Service agencies. Provisions will be made for equipping the center with a "Synoptic GIS METEO" unitized workstation which will make it possible to obtain weather data in real time at 3-hour intervals, as well as such parameters as the amount of precipitation, maximum and minimum air temperatures for all sites within the district. The weather maps received will be used in the routine operation of the center and will be transferred to the regional control stations of the bases for aerial forest protection.

As a result of interaction with the Far Eastern Center for reception and processing of satellite data the center will be provided with satellite images which will also be used for assessment of the meteorological situation in the district and monitoring of existing forest fires. The center will receive a large block of meteorological information from the Hydrometeorological Service agencies of the Khabarovsk Krai, including weather forecasts, storm warnings, information on the forest fire hazard, etc. The center will also make use of the meteorological information received by the central airbase from the Hydrometeorological Center of the RF (regional weather forecasts, synoptic materials). Use will also be made of the information on the detected seats of forest fires received from the crews of aircraft of the State Civil Aviation Service which perform scheduled flights.

The center's communication arrangements provide for use of satellite radio communication facilities of the Russian space segment of the Globalstar system. Based on the number of allocated terminals (satellite telephone sets) the central airbase is a corporate client eligible for receiving information free of charge. The cost of information transmission by using both the telephone and electronic communication facilities is US$0.99 per minute but it is necessary to bear in mind that transmission of digitized information is much shorter. Due to this, it should become the main mode in which the space segment will be used. In this connection, it is planned to implement in the nearest future a packet communication system at all airbases in the region.

Communication of the center with the superior authorities concerned is also effected by means of electronic mail, facsimile and telephone facilities. Every day the center receives by electronic mail satellite images from the server of the Aerial Forest Protection Service in Irkutsk and the Far Eastern Regional Center (FERC) for reception and processing of satellite data. The data on the flash coordinates and the cloud pattern are transmitted to the center from the FERC by telex. Reliable communication is maintained with all airbases in the district by means of electronic mail, telex and telephone facilities. Information has been gathered from the airbases in the Far Eastern Federal District on the availability of facilities for communication with the aviation units, forestries and timberland areas situated in the territory of responsibility of the airbases in the Far Eastern Federal District. A system for communication (facsimile, internet, telex) with the Central Department of Natural Resources, the Department of Natural Resources in the Far Eastern Federal District has been established.

To narrow the shortage of fire-fighting forces, a 100-strong mobile unit is being established at the center along with a mechanized brigade with a complement of 91. Based on the effective contracts and the plan of distribution of forest aviation aircraft for the Far Eastern Federal District, 98 aircraft could be used in 2003 for aerial forest protection applications, including 21 forest aviation aircraft.

Given that the standard requirement for medium-scale fire intensity stands at 198 aircraft, these facilities are obviously insufficient. Considering this, it is planned to organize an air squadron at the regional center comprising 5 aircraft, including 2 AN-3 planes, 1 AN-2? plane and 2 MI-8 helicopters whose mission will be to carry out routine airlifting of fire control means and resources. It is intended to base these aircraft at the airports in Khabarovsk, including the Vostok airport (AN-3 planes and MI-8 helicopters) and the new Khabarovsk airport (AN-26 plane).

The Far Eastern airbase also has a federal reserve storage for the fire-fighting facilities the quantity and the nomenclature whereof are determined by the RF Ministry of Natural Resources. These are allowed to be used only with the consent of the Head of the Forest Service or the deputies thereof. When the center is established, a reserve storage for the fire-fighting facilities of the Far Eastern Federal District will be set up alongside the existing storage facility.