## International Loran Association 30<sup>th</sup> Annual Convention and Technical Symposium

## Resolution

**Preamble:** The 30<sup>th</sup> Annual Convention and Technical Symposium of the International Loran Association was convened in Saint Germain-en-Laye, France, on October 8<sup>th</sup>, 2001. Participants to the Technical Symposium presented material and held discussions on the "Provision and Use of Loran-C and Chayka Services". The Convention followed within four weeks of the release of the report covering the GPS Vulnerability Study conducted by the U.S. Volpe National Transportation System Center and the terrorist attack on the World Trade Center and the Pentagon. The Convention also took place at a time when the Loran-C infrastructure in the United States is being rebuilt but under consideration for termination in Canada and Europe with uncertainty in other parts of the world.

**Recognizing** that satellite technology is being adopted worldwide as the preferred technology for positioning, navigation and the distribution of precise time;

**Recognizing also** that the future Global Navigation Satellite System (GNSS) may include but not be limited to the United States Global Positioning System (GPS), the Russian Global Navigation Satellite System (GLONASS), and the proposed European Galileo constellation

*Whereas* the United States Global Positioning System (GPS) is the first fully operational embodiment of this technology to provide an accurate three dimension positioning and precise time service;

*Noting* the release on September 10, 2001 of the report covering the GPS Vulnerability Study conducted by the United States Volpe National Transportation Systems Center (VNTSC);

*Considering* that the VNTSC Study Report identifies specific GPS vulnerabilities including the acts of terrorists intended to disrupt the GPS service;

**Considering also** the conclusions of the VNTSC Report recommending the identification of appropriate GPS back up systems and encouraging the development of low cost systems as back ups to GPS:

**Accepting** that Loran-C and Chayka services constitute a comprehensive alternative and back up to GPS and its augmentations by providing positioning information, a source of precise time and a data communications channel for the dissemination of GPS and GLONASS correction and integrity information.

**Resolved** that providers of Loran-C and Chayka services throughout the world should be encouraged to:

- continue to provide Loran-C/Chayka services and establish these services on a permanent basis as a complement to satellite technology
- > reassess the termination policy of these services if termination is contemplated;
- ➤ invite nations contiguous to areas now covered by Loran-C or Chayka to implement extensions to the current service;
- provide information and assistance to nations whose territories are not covered by these services but have determined that an alternative to GPS is required;
- coordinate international development and implementation of the Loran-C data communications channel for GNSS augmentation;
- transmit this resolution to all Loran-C or Chayka service providers throughout the world.

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<sup>&</sup>lt;sup>1</sup> Loran-C and Chayka services are similar and have compatible transmission formats. Loran-C stems from a United States military development while Chayka is the Russian equivalent.