

## **LRIT SYSTEM TRANSITION AND TEST PLANS**

This document provides an overview of the USA schedules for the transition and implementation of the LRIT service.

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## 1.0 Introduction

The USA has developed a transition and implementation plan for the LRIT that will commence on a GOES I-M spacecraft other than the operational satellites. Using the GOE-M spacecraft, LRIT testing was conducted from October – December 2001. Test schemes included variations of alternate transmissions of simulated LRIT signals with WEFAX and/or EMWIN broadcasts. Further tests of the new digital data stream are planned on non-operational satellites.

## 1.1 System Transition and Testing Plans

During the transition period, the USA will require the use of a GOES I-M spacecraft. The new ground equipment at the Wallops CDA stations and the LRIT test schedules allow an orderly transition to LRIT without the need to be sensitive to the specific GOES-N launch date.

NOAA plans to timesharing between WEFAX and LRIT on individual spacecraft for a limited time period (e.g., 1 to 2 years) followed by a total transition. The transition from existing WEFAX services to the new LRIT services has considered the requirements and concerns of the existing user population as well as the availability of NOAA resources (e.g., satellites, ground communications and control systems, personnel).

At the WEFAX User's Workshop, see <http://www.noaasis.noaa.gov/WEFAX/>, NOAA discussed the lead times for the LRIT transition. It was acknowledged that close coordination and planning was required before publicly announcing the implementation date and transition plan for LRIT. A consensus of the attendees confirmed there should be a multi-year overlap of the current WEFAX service and LRIT to facilitate the transition. The LRIT service is likely 2+ years away from implementation and NOAA must work on the development and implementation of a rigid transition plan and this must start immediately.

Further, the LRIT transition is described as a period of parallel operations for each of the two GOES satellites where both WEFAX and LRIT services would be simultaneously broadcast (i.e., timeshared GOES I-M transponder) for a specified transition period, followed by a full and permanent transition to full LRIT services.

The current goal of the transition plan is to provide the capability for an extended transition period without imposing significant demands for additional space, ground, and personnel resources. Current assessments of NOAA's plan are encouraging in the ability of the GOES I-M series to simultaneously accommodate both WEFAX and LRIT data through time-sharing techniques.

The current plans for LRIT implementation and transition testing is as follows:

- Initial ground testing of simultaneous LRIT and existing EMWIN transmissions were positive (i.e., acceptable performance) at the 128 kbps data rate.
- Testing continues whenever a non-operational GOES spacecraft is brought out of storage of health and safety validation.

