



## **PRESS RELEASE**

### **CNES, ORANGE FRANCE, AND ALCATEL JOIN FORCES TO TEST NEW MOBILE BROADCASTING CONCEPT**

*Hybrid satellite and terrestrial S-band system entering first trial outside the labs*

**Toulouse and Paris, July 18, 2006** – Centre National d'Etudes Spatiales (CNES), Orange France, and Alcatel announced today the selection of Toulouse and the Midi-Pyrenees Region for the first trial outside the laboratories of the main technical characteristics of the new mobile broadcasting solution over a hybrid satellite and terrestrial transmission system using S-band. This system is central to Alcatel's "Unlimited Mobile TV" solution. The technical trial in Toulouse, focused on the space aspects of this project, is preliminary to the research and development efforts for the terrestrial aspects of the project, made possible with support from the French Industrial Innovation Agency.

The CNES financed and oversaw the design and deployment of the demonstrator, set the trial schedule, and is leading the trial; Orange, the leader in mobile broadcasting, is providing terrestrial repeater sites and contributing its expertise for analyzing results; Alcatel is conducting all trial measurements and preparing the result analysis; in addition, Eutelsat and SES Astra are supplying the satellite resources needed for feeding terrestrial repeaters.

The trial was initially scheduled to continue through September 2006. Based on initial results, it has been decided to extend the technical trial through the end of 2006. As part of this extended trial period, Eutelsat will partner with CNES, Orange France, and Alcatel in order to pursue the validation of the technical choices of the hybrid satellite and terrestrial broadcasting system to provide S-band services.

The announcement prompted Janine Langlois-Glandier, President of the Mobile Television Forum, to state: "*The Mobile Television Forum recently declared its support for the adoption of standards which are widely approved in Europe and which guarantee interoperability, such as the DVB-H standard and its evolution in the S-band. We are pleased that a trial using the S-band solution will be conducted in Toulouse by CNES with Orange France and Alcatel, because we believe that this solution will assure consistency that will be beneficial for France and Europe as a whole.*"

The trial is part of permanent ongoing projects being conducted by CNES on space applications for the consumer market, and part of continuing preparatory work being conducted jointly by CNES and Alcatel on architectural concepts and the feasibility of a variety of technical solutions for a hybrid satellite and terrestrial system for mobile broadcasting.

## **Technical Description of the Trial**

The purpose of this trial is to provide a technical assessment, to supplement ongoing laboratory work, of certain key parameters of hybrid satellite and terrestrial S-band broadcasting, such as the impact of wave form on transmission quality, link budget, antenna diversity, error-correcting codes, and frequency sharing for satellite and terrestrial elements of the solution.

The demonstrator includes all elements of the proposed solution. The satellite is simulated using an S-band transmitter on board a helicopter at high altitude. The system is completed by terrestrial repeaters installed in ten or so locations belonging to Orange France, the mobile telecommunications operator, alongside its GSM and UMTS service transmitters. Lastly, a test terminal and instruments on board a vehicle are used to measure and record the signal in real time.

The demonstrator covers southeastern Toulouse and the suburbs, from downtown to Castanet Tolosan and St Orens, including the Canal Technology Park and Rangueil. The tests will also be conducted outside of Toulouse and its suburbs, in order to evaluate reception conditions in population centers of variable size, simulating complete coverage within mainland France.

#### **About CNES**

CNES, the French Space Agency, contributes to the development of space technology applications with strong commercial potential, as is the case for telecommunications and TV broadcasting. CNES validates promising technical concepts and carries out the corresponding space R&D. Space technology can therefore serve large industrial initiatives which will lead to products and services with market demand. The Center also plays an important role in concept verification and demonstration, in order to boost investors' and potential users' confidence and encourage their involvement with industry players.

#### **About Orange**

Orange, a France Telecom subsidiary, is a world leader in mobile telephony. Orange France is the country's leading mobile telecommunications operator with more the 22.5 million customers on March 31, 2006.

#### Orange and Mobile Broadcasting

Orange France possesses extensive experience in mobile broadcasting, a service available to its 3G and Edge customers since December 2004 over 96% of France. Over 50 channels are accessible via its Orange World portal. The Orange mobile broadcasting service generates nearly 5 million connections per month. Orange has also participated in one of the very first DVB-H trials in France as early as 2005.

#### **About Alcatel's "Unlimited Mobile TV" Project**

The goal of the "Unlimited Mobile TV" Project is to make television available on mobile phones throughout rural and urban areas, including indoors, with a wide range of programming options and excellent image quality, regardless of the number of viewers simultaneously watching the same program. This universal coverage is possible thanks to the unique combination of country-wide satellite coverage and terrestrial mobile networks for dense city coverage and interactivity.

#### CNES Press Contacts

Sandra Laly – Tel. +33 1 44 76 77 32, +33 6 08 48 39 31

#### Orange Press Contacts

Sébastien Goalès - Tel. +33 1 44 44 93 93

#### Alcatel Press Contacts

Régine Coqueran / HQ

Tel: + 33 1 40 76 49 24

[regine.coqueran@alcatel.com](mailto:regine.coqueran@alcatel.com)

Robin Karvo / HQ

Tel: + 33 1 40 76 13 36

[robin.karvo@alcatel.com](mailto:robin.karvo@alcatel.com)

Eric Giaretto / Alcatel Mobile Broadcast

Tel: + 33 1 30 77 88 47

[eric.giaretto@alcatel.com](mailto:eric.giaretto@alcatel.com)

#### Alcatel Investor Relations

Pascal Bantegnie

Tel: +33 1 40 76 52 20

[pascal.bantegnie@alcatel.com](mailto:pascal.bantegnie@alcatel.com)

Nicolas Leyssieux

Tel: +33 1 40 76 37 32

[nicolas.leyssieux@alcatel.com](mailto:nicolas.leyssieux@alcatel.com)

Maria Alcon

Tel: +33 1 40 76 15 17

[maria.alcon@alcatel.com](mailto:maria.alcon@alcatel.com)

Charlotte Laurent-Ottomane

Tel: +1 703 668 7016

[charlotte.laurent-ottomane@alcatel.com](mailto:charlotte.laurent-ottomane@alcatel.com)