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Total Entertainment System (TES) - Archived 01/2008

Outlook

- Total Entertainment System (TES) provides commercial aircraft passengers with in-flight entertainment

- Rockwell Collins manufactures the TES

- Detailed sales information regarding TES unavailable

- Forecast International will archive this report in January 2008; should sufficient TES production data be made public, Forecast International will reissue this report

Orientation

Description. The Total Entertainment System (TES) provides commercial aircraft passengers with in-flight entertainment. Rockwell Collins manufactures the TES.

Sponsor

Rockwell Collins Inc
  400 Collins Road NE
  Cedar Rapids, IA 52498
  Tel: + 1 (319) 295-1000
  Fax: + 1 (319) 295-5429
  Web site: http://www.rockwellcollins.com

Status. In service.

Application. In-flight entertainment.

Price Range. Rockwell Collins has not made the price of the Total Entertainment System public. Forecast International estimates the price of one TES Universal Passenger Control Unit (UPCU) and display screen to be $500. This dollar amount is highly speculative.

Contractors

Prime

Rockwell Collins Inc	http://www.rockwellcollins.com, 400 Collins Rd NE, Cedar Rapids, IA 52498-0001 United States, Tel: + 1 (319) 295-1000, Fax: + 1 (319) 295-5429, Email: collins@rockwellcollins.com, Prime

Comprehensive information on Contractors can be found in Forecast International's "International Contractors" series. For a detailed description, go to www.forecastinternational.com (see Products & Samples/Governments & Industries) or call + 1 (203) 426-0800.

Contractors are invited to submit updated information to Editor, International Contractors, Forecast International, 22 Commerce Road, Newtown, CT 06470, USA; rich.pettibone@forecast1.com

Total Entertainment System (TES)

Technical Data

The Total Entertainment System is modular in design. A Universal Passenger Control Unit (UPCU) and a display screen make up the TES. The system's liquid crystal display (LCD) screen is available in 6.4-inch, 8.4-inch, and 10.4-inch sizes. Airlines can install the screen in seat arm or seatback viewing configurations.

The passenger interfaces with the TES through a touch screen and/or a variety of Passenger Control Units (PCUs) to select movies, music, games, surveys, or shopping opportunities, or to browse intranet pages.

Built into each Universal Passenger Control Unit is a telephone that works with standard aircraft wiring and supports multiple cabin telecommunications unit (CTU) suppliers and any telephone provider. The TES also features seat-to-seat calling and provides screen and voice prompts.

The touch-screen, menu-driven cabin crew interface allows the cabin crew to turn cabin entertainment on and off, as well as control and preview safety briefings, videos, and overhead monitors. All functions are password-protected to ensure safety.

Variants/Upgrades

The Enhanced Total Entertainment System (eTES) is the latest evolution of Rockwell Collins' TES. The eTES uses industry-standard cable modem technology to deliver more bandwidth than the TES, which results in more entertainment choices for passengers.

Other eTES enhancements include Microsoft Windows-based servers and clients. The server runs Microsoft Windows NT and the Internet Information Server (IIS) application. Microsoft Windows CE.NET provides passengers with the Internet Explorer for Internet navigation. The eTES' use of Microsoft products allows for quick integration of third-party software applications.

While reducing total system volume, weight, and power, the eTES offers Internet and e-mail capabilities to passengers. The eTES also offers aircraft passengers audio and video on demand (AVOD). AVOD is like having a personal VCR or CD player at your seat. AVOD allows passengers to view or listen to any available program at any time they choose and operate it like a home video player, allowing the passenger to select programming language, start, stop, pause, fast-forward, and rewind.

Rockwell Collins also designed the eTES to reduce crew workload. For example, airlines can install multiple control stations throughout an aircraft cabin. From these user-friendly terminals, flight attendants configure the mode of content delivery with just a few keystrokes.

Rockwell Produces the Total Entertainment System

Source: Public Domain

Program Review

Rockwell Generates $350 Million in TES Orders

In December 1997, Rockwell Collins purchased the in-flight entertainment business of Hughes Electronics. Shortly thereafter, Rockwell introduced its Total Entertainment System (TES). Within 10 months of bringing the TES to market, Rockwell Collins generated a total of $350 million in new TES orders from six airlines.

In January 1998, Rockwell Collins sold Air France the TES for 12 Boeing 777 and five Airbus 340 aircraft. One month later, Rockwell announced it had sold British Airways its Total Entertainment System to be installed on more than 100 of its Boeing aircraft.

Total Entertainment System (TES)

In June 1998, Rockwell Collins made its first delivery of Total Entertainment Systems to Linea Aerea Nacional de Chile (Lan-Chile), to be installed on 13 Boeing 767 aircraft. In August 1998, American Airlines announced its procurement of the TES for 11 Boeing 777 aircraft.

Rockwell Sells TES to Japan

In September 1998, Rockwell Collins sold its TES to Japan Airlines for installation on 24 Boeing 747-400 and four 747-300 aircraft. In the same month, Delta Air Lines announced its selection of Rockwell's TES for 21 new Boeing 767-400 and 12 new Boeing 777 aircraft. Delta also announced that it would retrofit 42 767-300 and 15 MD-11 aircraft with the TE S.

In September 2001, Rockwell Collins brought an enhanced version of its TES to the marketplace. Rockwell refers to this upgraded version both as the TES and as the Enhanced Total Entertainment System, or eTES.

In February 2002, Rockwell Collins completed retrofitting its TES with audio and video on demand on three Japan Airlines Boeing 747-400 aircraft. In November 2002, Qantas Airways took delivery of its first Boeing 747-400ER equipped with Rockwell Collins' Total Entertainment System.

In March 2003, Ethiopian Airlines selected Rockwell Collins' Total Entertainment System to install in their new Boeing aircraft. Delivery of the three Boeing 767-300ER aircraft equipped with TES began in 2003 and was completed in 2005.

In June 2003, Kenya Airways selected Rockwell Collins to provide its TES on three Boeing 777 aircraft. Rockwell Collins will also upgrade TES on three Boeing 767 aircraft owned by Kenya Airways. On the Boeing 767 aircraft, Rockwell will upgrade TES to include full in-seat audio and video on demand capabilities. These TES deliveries began in late spring 2004.

In June 2004, Rockwell Collins signed a Letter of Intent to supply eTES to Air New Zealand. Under the Letter of Intent, Air New Zealand will retrofit seven Boeing 747-400 aircraft (plus one option aircraft) with Rockwell's Enhanced Total Entertainment System. Forecast International expects these retrofits to be completed by early 2006.

In August 2004, Air New Zealand selected Rockwell Collins to supply eTES audio and video on-demand (AVOD) in-flight entertainment equipment on Air New Zealand's eight new Boeing 777-200ER aircraft.

Funding

Rockwell Collins funds the production of the Total Entertainment System.

Contracts/Orders & Options

Rockwell Collins has not made TES contract information public.

Timetable

Month	Year	Major Development
Jan	1998	Rockwell Collins introduces its Total Entertainment System (TES)
Feb	1998	Rockwell announces sale of TES to British Airways to be installed on more than 100 Boeing aircraft
Sep	2001	Rockwell Collins brings the Enhanced Total Entertainment System (eTES) to market
Feb	2002	Rockwell Collins completes retrofitting its TES with audio and video on demand on three Japan Airlines Boeing 747-400 aircraft
Mar	2003	Ethiopian Airlines selects Rockwell Collins to install its TES on three new Boeing Aircraft purchased by Ethiopian Airlines
Jun	2004	Rockwell Collins signs a Letter of Intent to supply its eTES to Air New Zealand

Total Entertainment System (TES)

Worldwide Distribution/Inventories

More than 18 airlines worldwide have installed the TES on their aircraft.

Forecast Rationale

The Total Entertainment System, or TES, is a commercial aircraft in-flight entertainment system manufactured by Rockwell Collins. TES provides aircraft passengers with digitally stored entertainment for playback at their seats.

Publicly available TES production data is insufficient for Forecast International to make a Ten-Year unit production forecast. Consequently, Forecast International will archive this report in January of 2007. Should sufficient TES production data be made public, Forecast International will reissue this report.

Ten-Year Outlook

With no outlook forecast and the archiving of this report in January 2008, Forecast International has **omitted** the Ten-Year Outlook chart.

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