



# Technologies and Techniques for New Maintenance Concepts

## Fact Sheet

### Project Information

#### TATEM

Grant agreement ID: 502909

#### Start date

1 March 2004

#### End date

28 February 2009

#### Funded under

FP6-AEROSPACE

#### Overall budget

€ 39 442 910

#### EU contribution

€ 21 932 083

#### Coordinated by

GE AVIATIONS SYSTEMS LTD

 United Kingdom

## Objective

Maintenance activities can account for as much as 20% of an operator's direct operating costs and have remained at this level for many years. However, there is scope for increasing the efficiency of the maintenance process. For example, it is estimated that line mechanics spend 30% of their time trying to access information to diagnose and rectify failures. Additionally errors in the maintenance process can impact on aircraft safety. In a recent survey the incidence of human error in the maintenance task has been estimated as contributing to 15% of aircraft accidents. The occurrence of the need for unscheduled maintenance can introduce costly delays and cancellations if the problem cannot be rectified in a timely manner. The objective of the TATEM Integrated Project is to validate technologies and techniques which can be used to transfer unscheduled maintenance to scheduled maintenance and provide the means to make the maintenance task more efficient and effective. The technologies and techniques to be validated include: Novel onboard sensor

technology to gather data from the aircraft systems (avionics, utilities, actuation, engines and structures) Maintenance-free avionics Signal processing techniques (e.g. fuzzy, logic, neural networks, model-based reasoning) which can be used to convert data into information about the health of the systems. Diagnostic methods to identify and locate failures and malfunctions and so reduce the number of incidences of no fault found Prognostic methods to provide support for preventative maintenance actions Decision support techniques to provide the maintenance crew with process-oriented information and guidance Human interface technologies to provide the ground crew with information at their point of work.'

## Fields of science

> > >  
> > > >  
> > >

## Programme(s)

## Topic(s)

## Call for proposal

FP6-2002-AERO-1

## Funding Scheme

IP - Integrated Project

## Coordinator



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