Strengthening the International Aerospace Industry in Aichi & Gifu

Collaboration between Aichi and Gifu Prefectural Governments, 9 City Governments, as well as the Nagoya Port Authority has applied policies which designate areas for aerospace industry growth. This will strengthen areas which have already been instrumental in the development and manufacturing of the upcoming Mitsubishi Regional Jet (MRJ) as well as manufacturing 35% of the 787.

The policies designate areas as international strategic zones, establishing support organizations, and building facilities that will attract aerospace research, development, and manufacturing. The zones allow for relaxed regulation and taxation, as well as incentive programs to stimulate growth. The expectation is that the zones will also attract companies from abroad to manufacture and invest in the prefectures.

http://www.pref.aichi.jp/0000045411.html (Japanese)

New Autoclave for MHI

Mitsubishi Heavy Industries, Ltd. (MHI) has received delivery of a gigantic autoclave, one of the world’s largest, at its Nagoya Aerospace Systems Works in Aichi Prefecture. The autoclave will be used in forming and shaping of composite materials. This new autoclave will join another similar sized autoclave that was installed in 2006, and for the foreseeable future they will be forming wing boxes for the Boeing 787 Dreamliner. Boeing feels that as manufacturing becomes more streamlined it will be able to assemble 10 787s a month by 2013.

The autoclaves measure 26 feet in exterior diameter and 131 feet in length and weigh 700 tons each. The wings of the 787 are about 100 long, so the autoclaves could possibly be used for larger wings in the future.


Centrair won “ACI Director General’s Roll of Excellence”

Central Japan International Airport (Centrair) was honored this month by the Airport Council International (ACI), a worldwide association of airports. At their yearly meeting in Morocco, the ACI announced that Centrair had been inducted into the “Director General’s Roll of Excellence.”

ACI Director General’s Roll of Excellence has just been launched to recognize airports that have achieved excellent customer service and distinguished themselves from the 227 airports across the globe. This year there are 14 international airports inductees which have ranked within the top five, either by the airport size or the region, in the ACI’s Airport Service Quality survey for five consecutive years between 2005-2010.

Centrair is especially honored to be the only airport in Japan to gain this recognition. The other airports to be recognized are: Seoul Incheon, Hong Kong, Abu Dhabi, Austin, Dallas Forth Worth, Doha, Durban, Halifax, Johannesburg, Ottawa, Porto, Singapore, and Zurich.


Commercialize Bio-fuels by 2020

Toyota Biotechnology and Afforestation Laboratory in Aichi announced that it is on track to halve the cost of biofuel manufacturing by the year 2020. The breakthrough comes from highly specialized yeast used in the manufacturing process. The yeast were created by a new genetic modify processed that focuses the fermentation process on the creation of ethanol.

Toyota’s process will take non-edible plant fibers, add sugars and enzymes, and then ferment into ethanol. The output of the process is significantly boosted by the efficiency of the new yeast strain. The plant material is easy to grow, and future plant stock improvements as well as advanced equipment, will get Toyota to the goal of 40 yen per liter.


Toyota Industries Corp. sets a new Speed Record

The Ku:Rin (pictured above) captured the speed record for a vehicle utilizing compressed air technology with a speed of 129.2 km/h (80.3 mph), Toyota Industries Group engineers in Aichi Prefecture developed the compressed-air engine without the assistance of electricity or gasoline. The record was achieved at the Toyota test track on June 9, and the engineering team applied for the Guinness Record soon after that.

The power for the Ku:Rin comes from a reversed A/C compressor that generates energy from the expansion of compressed air, while the vehicle’s on-board compressed air tanks serve as “fuel.” Though 80 mph seems reasonable, the Ku:Rin's two-mile total range makes it a purely experimental vehicle.