

# Contaminated aviation fuel grounds 5,000 planes in Australia

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No end is yet in sight to an aviation fuel contamination crisis that has grounded an estimated 5,000 piston-engine planes across eastern Australia and some in New Zealand since December 23. Most of the affected light planes remain barred from flying indefinitely despite an official announcement last Sunday that some planes may be soon cleared for service.

Facing crippling losses and angered by weeks of official confusion, bureaucratic delays and corporate buck-passing, aircraft owners and small airlines this week launched two legal actions against fuel refiner Mobil for losses in excess of \$100 million.

Mobil says that a change in the production process at its Altona (Melbourne) oil refinery from November 21 last year caused an unexpected black-coloured contaminant. The company supplies about one-third of the country's aviation gas, dominating supplies down the busy east coast, with Shell and BP selling the rest.

Nearly half the country's 11,500 light planes have been unable to fly for more than four weeks, paralysing rural transport services, regional airports, emergency services, tourist operations and agricultural activities such as crop-dusting. People in rural and provincial areas, who depend heavily on air services, have been worst hit, particularly over the peak holiday travel period.

In some cases, critical medical services have been inoperable, with six Royal Flying Doctor service planes grounded, together with air ambulances. Those immediately affected included 50 Victorian country cancer patients who use air ambulances to fly to Melbourne for chemotherapy.

In other instances, supplies of medications and other essential items, including mail, have been disrupted. In Victoria, Country Fire Authority fire spotting planes were grounded. Wider losses are likely in agriculture—for some farmers this is the most critical season for aerial crop spraying.

An estimated 7,000 jobs have been affected in small airlines, flying schools, local airports and a host of other related operations. Hundreds of aviation businesses face bankruptcy. Even airforce Caribou transport aircraft have been halted, including one in East Timor.

Many planes may never fly again because the black residue—left in engines and fuel tanks by an excess of ethylene

di-amine (EDA)—can permanently damage engine parts. Repairs and replacement engines will cost up to \$60,000 per aircraft. In some cases new aircraft will be needed, costing \$1 million or more each.

It appears that Mobil added the EDA, an anti-corrosion agent, to counteract high acid levels. But when the additive came into contact with brass or bronze engine components, such as fuel caps and chains dangling in tanks, a black sludge-like material formed. This sludge blocked fuel filters, carburettors and fuel-injection systems, leading to rough running and engine failures.

The federal Air Traffic Safety Bureau says it cannot discount the possibility that fuel contamination may have caused light plane crashes over the past two years. Even since November 21, four young people died in a Cessna 172 crash at Gisborne near Melbourne and two helicopters crash-landed at Melbourne's light aviation Moorabbin airport. A coroner is re-examining the engine and fuel samples from the Cessna 172, which stalled in mid-air and ploughed nose-first into the ground.

In the latest twist in the Avgas affair, the federal government's Civil Aviation Safety Authority (CASA) declared on Sunday that a white gel found in fuel tanks was harmless. Yet the white substance—originally thought to be a secondary contaminant produced by the EDA—was the reason given for CASA's order of January 10 stopping all flights by affected aircraft.

CASA claimed that its latest decision could allow 3,000 planes to fly within a few days, provided they were tested first. But even in checking aircraft, CASA is depending on Mobil to supply the chemical kits that licensed aircraft engineers will use. Starved of funds by successive governments, CASA lacks the financial resources or skilled personnel to undertake the testing itself.

On Monday, the first day of testing, only five aircraft were cleared to fly. The remaining aircraft, most of which are now expected to fail the test, could be out of action for weeks more. No reliable procedures have been devised to clean out the black EDA residue. Moreover, CASA, Mobil and aircraft manufacturers are at loggerheads over the impact of water-based cleansing processes, with the manufacturers threatening to cancel their engine warranties.

Pilots and aircraft owners remain sceptical about CASA's assurances that the white gel was harmless. Aircraft Owners and Pilots Association (AOPA) general manager Mike Hart said: "I think we are shocked and appalled that after two weeks of considerable experimentation, testing and soul searching the white substance turns out to be supposedly harmless and there are concerns about the quality of that advice."

From the outset both CASA and Mobil have sought to play down the dangers and impact of the crisis. The fuel contamination only came to light last December following reports of engine stoppages, electric pump failures and sticky black deposits on engine parts. In one incident, a light plane suffered engine failure on takeoff from Moorabbin airport. It was not until December 23 that CASA ordered all affected aircraft to undergo certified fuel tank cleansing.

Then on January 7, Mobil issued a letter to its customers warning them that traces of contaminant had been found in previously cleaned engines. "We strongly recommend that you urge all customers whose aircraft were fuelled in Victoria, NSW or southern Queensland ... to NOT fly their aircraft until further notice," the letter said.

By contrast, Mobil's letter to CASA the same day suggested only further cleaning. It urged CASA to "give serious consideration to issuing a requirement that all aircraft ... should have additional fuel system cleaning before further operation." CASA did not issue its Airworthiness Directive to ground the aircraft until three days later.

Despite conceding that it is the source of the tainted fuel, Mobil has failed to provide any explanation for the contamination and has refused to accept legal liability. After weeks of stonewalling, it unsuccessfully sought to evade legal action by announcing a \$15 million fund to pay for its customers' emergency repair work. This gesture, with a limit of \$10,000 per aircraft, was hailed by Acting Prime Minister John Anderson. "Mobil has recognised that it has a moral obligation to assist the aviation industry through this crisis," Anderson said.

Mobil's puny offer and its refusal to admit legal responsibility, however, outraged many aircraft owners. AOPA president Bill Hamilton said: "The final damages bill is going to be far, far in excess of the \$15 million that is supposed to be for the worst affected. We are talking about everything from the costs of cleaning (engines), about the replacement of aircraft damaged beyond viable repair, about planes that will be irreparable, about lost revenue and businesses destroyed by this massive lapse in quality control."

In addition, aircraft operators accused CASA of ignoring indications of tainted fuel two years ago. In early 1998 Schutt Aviation reported problems with fuel pumps of Piper Chieftain aircraft. Then in February and March 1999 the AOPA produced evidence of eight contamination problems. Investigators are now also looking at a report from Melbourne-based Direct Air Charter that pinpointed possible contamination on November 8.

Without waiting for any investigation, CASA aviation safety director Mick Toller declared that the 1998 problem was different. He said he was confident that the current danger stemmed only from Mobil's changed refining process last November 21.

The Howard government has refused to establish an independent inquiry into the catastrophe, instead instructing its own Air Traffic Safety Bureau, CASA's sister body, to conduct an investigation. One key issue unlikely to be tackled is the effect of the previous Labor government's 1991 decision to shift responsibility for monitoring aviation fuel quality from regulators to the manufacturers.

The internal probe will exclude another underlying factor—cost-cutting, restructuring and rationalisation in the oil refining industry. Mobil's recently-merged parent company, Exxon-Mobil, cut production at its other Australian refinery, at Adelaide's Port Stanvac, by almost a half last year and is rumoured to be planning to exit the small Australian industry altogether. In recent years thousands of jobs have been eliminated in the country's six refineries.

The Avgas disaster is the latest in a series of breakdowns of essential services in Australia and neighbouring New Zealand. An explosion at Mobil's Longford natural gas plant in 1998 cut off gas supplies throughout the state of Victoria for more than a month. Earlier that year, Sydney's water supply was seriously affected for weeks by a bacterial contamination caused by sewage runoff. Before that, prolonged electricity blackouts hit Brisbane and Auckland.

Each breakdown was preceded by drastic job-shedding, maintenance cutbacks, safety de-regulation and profit-driven restructuring. And in every case, efforts to establish the causes and remedy the damage suffered have been obstructed by official cover-ups and expensive litigation in the courts.



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