U.S. Department
of Transportation
**Federal Aviation
Administration**

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James W. Johnson
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Dear Mr. Johnson:

This letter is in response to your July 21, 2005 letter concerning the amendment of a dispatch or flight release. As discussed below, under certain circumstances, there is a requirement to add an alternative airport or fuel stop to a dispatch or flight release while enroute. In addition, it is possible the FAA would consider a pilot careless or reckless for continuing to an airport without enough fuel to fly to an alternative airport.

Factual Summary

An airplane operating under part 121 domestic rules is dispatched to a destination airport without an alternative airport, because the weather forecasted at the destination airport is clear enough that no alternative airport is required.[1] The airplane is loaded with the minimum required fuel to get to the destination airport.[2] After departure, weather at the destination airport deteriorates to the point that an alternative airport would have been required, if the airplane had not yet departed. At this time, weather at the destination airport is still above landing minimums, so the operator maintaining operational control over the flight, instructs the pilot to continue to the original destination. When the flight arrives at the destination airport, the weather no longer meets landing minimums so the pilot must execute a missed approach. The pilot no longer has enough fuel to safely divert to another airport.

Applicable Regulations

14 CFR 121.601 Aircraft dispatcher information to pilot in command: Domestic and flag operations.
(a) The aircraft dispatcher shall provide the pilot in command all available current reports or information on airport conditions and irregularities of navigation facilities that may affect the safety of the flight.
. . . . .

[1] See 14 CFR 121.619(a), in particular the last sentence which provides, in part, the following "…no alternate airport is required if for at least 1 hour before and 1 hour after the estimated time of arrival at the destination airport the appropriate weather reports or forecasts, or any combination of them indicate…"
[2] In the case where the weather is clear enough at the destination airport for 1 hour before through 1 hour after the planned landing, the minimum fuel required is enough to get to the destination airport, plus enough fuel to fly for 45 minutes at normal cruising fuel consumption. See 14 CFR 121.639(c).

(c) During a flight, the aircraft dispatcher shall provide the pilot in command any additional available information of meteorological conditions (including adverse weather phenomena, such as clear air turbulence, thunderstorms, and low altitude wind shear), and irregularities of facilities and services that may affect the safety of the flight.

14 CFR 121.619 Alternative airport for destination: IFR or over-the-top: Domestic operations.
(a) No person may dispatch an airplane under IFR or over-the-top unless he lists at least one alternate airport for each destination airport in the dispatch release. When the weather conditions forecast for the destination and first alternate airport are marginal at least one additional alternate must be designated. However, no alternate airport is required if for at least 1 hour before and 1 hour after the estimated time of arrival at the destination airport the appropriate weather reports or forecasts, or any combination of them, indicate—
(1) The ceiling will be at least 2,000 feet above the airport elevation; and
(2) Visibility will be at least 3 miles.

14 CFR 121.627 Continuing flight in unsafe conditions.
(a) No pilot in command may allow a flight to continue toward any airport to which it has been dispatched or released if, in the opinion of the pilot in command or dispatcher (domestic and flag operations only), the flight cannot be completed safely; unless in the opinion of the pilot in command, there is no safer procedure. In that event, continuation toward that airport is an emergency situation as set forth in §121.557.

14 CFR 121.639 Fuel supply: All domestic operations.
No person may dispatch or take off an airplane unless it has enough fuel—
(a) To fly to the airport to which it is dispatched;
(b) Thereafter, to fly to and land at the most distant alternate airport (where required) for the airport to which dispatched; and
(c) Thereafter, to fly for 45 minutes at normal cruising fuel consumption or, for certificate holders who are authorized to conduct day VFR operations……

14 CFR 121.647 Factors for computing fuel required.
Each person computing fuel required for the purposes of this subpart shall consider the following:
(a) Wind and other weather conditions forecast.
(b) Anticipated traffic delays.
(c) One instrument approach and possible missed approach at destination.
(d) Any other conditions that may delay landing of the aircraft.

Questions

You asked the following questions:
(1) Is there any requirement in the FARs that would require an alternate airport be added to the original flight release while enroute if the weather requires it or that requires a fuel stop if there is not sufficient fuel to safely divert to another airport?
(2) Would the FAA consider the pilot careless and reckless if he continued to the destination without the necessary fuel to fly to an alternate airport?

Analysis

Before we answer your questions, it is important to note two requirements that are designed to help prevent the situation you describe. Compliance with these requirements should greatly reduce the likelihood of the situation you describe. First, as you are aware, section 121.639 prohibits the dispatch of an airplane unless it has enough fuel to at least fly to the destination airport and enough fuel to fly an additional 45 minutes at normal cruising fuel consumption. Section 121.619 states if certain weather conditions are forecasted for the destination airport, an operator must designate an alternative airport. If an alternative airport must be designated, section 121.639 requires an operator to carry additional fuel on the airplane in order to fly to the alternative airport. In addition, section 121.647 requires each person computing fuel requirements for operations under part 121 to consider several conditions. Included in these conditions are wind, other weather conditions forecast, and any other conditions that may delay landing of the aircraft. Given these requirements, every airplane operated under part 121 must have at least an additional 45 minutes of fuel at normal cruising fuel consumption. Poor weather conditions may require an operator to carry additional fuel.

Answer to Question 1

Under certain circumstances, there is a requirement to add an alternate airport to the original flight release while enroute, if there is not sufficient fuel to safely divert to another airport. As you are aware, during a flight the dispatcher for a flight operated under part 121 must provide the pilot in command with additional information of meteorological conditions that may affect the safety of the flight.[3] Section 121.627(a) prohibits the pilot in command from continuing towards any airport to which the aircraft has been dispatched if the flight cannot be completed safely. To comply with section 121.627(a), a pilot in command, with the assistance of the dispatcher, must continue to monitor weather conditions at the destination airport during flight and continue to monitor the amount of remaining fuel. If the weather continues to deteriorate at the destination airport and the pilot knows no alternate airport was designated, in order to safely complete a flight, the pilot must determine whether an alternate airport should be designated. If the pilot knows weather is deteriorating and it is unlikely that the airplane will be able to land at the destination airport because of weather conditions and fuel is running low, the pilot must designate an alternate airport or a fuel stop.

Answer to Question 2

The FAA may find a pilot to be careless and reckless if he continued to a destination airport without the necessary fuel to fly to an alternate airport. Such a finding would be highly dependant on the facts of a particular case. As stated above, if an alternate airport is required before departure, an airplane cannot be dispatched without carrying enough fuel to fly to the destination airport, then to the alternate airport, and then for another 45 minutes.[4] Therefore, where an alternate airport is required, there must always be enough fuel to fly to an alternate airport. A pilot would not be the only party held to be careless and reckless if there is not enough fuel to fly to a required alternate airport under this scenario. As discussed above, for a part 121 operation where no alternate airport is required and (1) the pilot and the air carrier are aware the weather at the destination airport is deteriorating, and (2) it is clear there is not enough fuel to fly to an alternate airport, should the weather further deteriorate beyond landing minimums at the destination airport; the FAA probably

[3] See 14 CFR 121.601(c).
[4] See 14 CFR 121.639.

would consider the pilot and the air carrier to be careless and reckless for continuing to operate the airplane to the destination airport without amending the dispatch or flight release to add an alternate airport or a fuel stop.

These situations are highly fact-dependent and it is possible that as the airplane gets very close to the destination airport, the weather could suddenly change in an unforeseen manner; then the FAA could conclude that no one is culpable.

We trust this interpretation has answered your questions. This letter was prepared by Douglas Mullen, Attorney, reviewed by Joseph Conte, Manager, Operations Law Branch of the Office of the Chief Counsel and coordinated with Flight Standards Service.

Sincerely,

/s/
Rebecca B. MacPherson
Assistant Chief Counsel, Regulations Division