



○ Iss. 15 | ○ March | ○ 2010

Coos Bay Coastal

Hops

It's Tougher in Alaska

www.coosbayhops.com

The difficult, we do immediately! The impossible takes a little longer...

Where In The World...



Name the Airports...



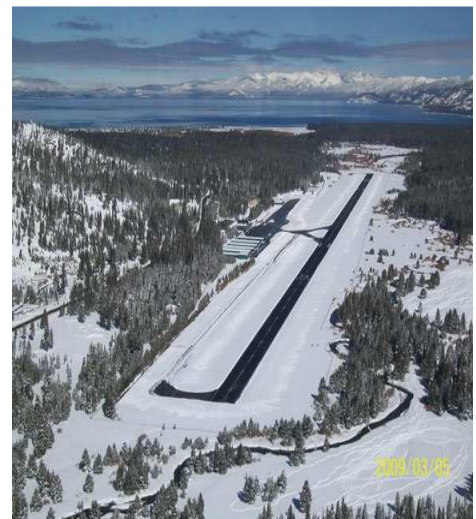
Feedback

We want to know what you think!

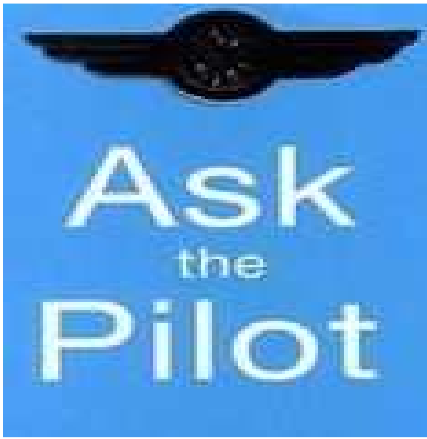
If you have questions, concerns, suggestions, ideas, wishes, fears, doubts ... or just want to say hello to our **Coos Bay Hops Team**, just email us. We are always happy to hear from you.



Do you enjoy receiving this newsletter each month? Share your joy and tell a friend and have them become a member.



Answers in April issue



Test your internet speed
<http://tinyurl.com/5jsuon>



Dear Coos Bay Hops Captain,

What is the speed of sound at say 12,000 meters (39,370 feet)? Is there a chance that the flight computer slows the engines down?

I take it that you need delta wings to break the speed barrier and then after the speed barrier has been broken, the wings could revert back to normal shaped wings?

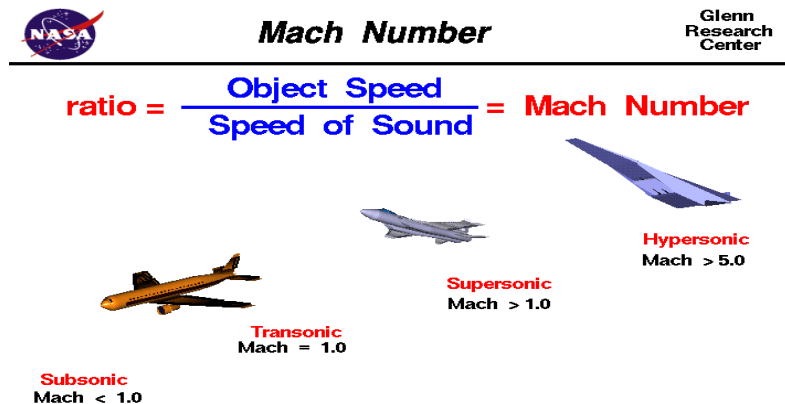
Answer:

The speed of sound at 12000 meters or 39,370 feet is 573 knots. A jet stream of 150 to 180 knots (from the tail) could easily push the plane above the speed of sound in relation to the ground. For instance, if a Boeing 777 cruising at 450 knots is being blown by a jet stream of 180 knots or so, the resultant ground speed is 630 knots (450 + 180) as the plane overcomes drag forces. This is 57 knots greater than the speed of sound.

Many people are confused and may say that the plane is now supersonic, fearing that it may cause structural damage to the aircraft as it is not designed to fly that fast! No, as far as the plane is concerned, it is still cruising at 450 knots in relation to the relative airflow. The computer will not kick in to slow down the plane. The speed in the air is always a function of air pressure against the plane and as the plane rises to higher altitudes, speed increases accordingly and compensates for lower air density.

The Concorde has (or had) delta wings for supersonic flight. I believe you are referring to "sound barrier" instead of "speed barrier" where supersonic flight is concerned. Yes, "breaking the sound barrier" is the process of accelerating through Mach 1 and going from subsonic to supersonic speeds.

As the plane crosses this barrier, there is a large increase in drag that would seem to indicate that an infinite amount of thrust is needed to fly at supersonic speed. In order to maintain the speed of sound, delta shaped wings must continue to be maintained. Wings are then retracted to normal shaped wings only when the air speed is back to subsonic speed.



Information in this newsletter is developed by Kevin Kashi and Ted Robinson using the Coosbayhops website and published information on the internet. For questions, comments or suggestions regarding methods to improve the skill sets of PC pilots, airport and airplane design, please contact Kevin at CoosBayKevin@aol.com or Ted at trobin@molalla.net. Unauthorized use of the contents in this newsletter is prohibited.