

Re: Has Discovery been doomed by a bird strike?

Source: <http://sci.tech-archive.net/Archive/sci.electronics.misc/2005-07/msg00294.html>

- *From:* TheTechnician <me@xxxxxxxxxxx>
 - *Date:* Fri, 29 Jul 2005 00:03:06 GMT
-

Don Bruder wrote:

>In article <1122461977.353448.215970@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>,
> testing_h@xxxxxxxxx wrote:
>
>> <http://news.bbc.co.uk/2/hi/science/nature/4719847.stm>
>>
>> This isn't good. Have they considered how much damage a bird could do
>> if it hit in a vulnerable spot on the airframe during launch?
>>
>> Lets hope that if there is damage, it is noticed during the tile
>> inspection and can be repaired with the onboard toolkits.
>>
>> -A
>>
>
>Unless there are new pictures somewhere the I haven't seen yet, that
>bird splatted on the nose of the external fuel tank – Which doesn't have
>tiles and suchlike stuff, since it falls off and lands in the ocean
>before getting high enough to experience the heat of re-entry.
>
>In other words: "They hit a bird on the way up. Big fat hairy deal."
>

Just an FYI: re-entry heat is a result of *speed* not altitude, and the external tank is at orbital speed (17k mph?) and altitude *before* main engine cutoff. It *has* to be, the ET carries the fuel the main engines use to get to orbital speed. After MECO the orbiter actually does an OMS burn to head the ET down (toward the atmosphere), separates and then does an OMS maneuver to circularize it's own orbit. The ET does experience *some* re-entry heating, but it is so light compared to its surface area that it slows down pretty quick. It is 'thrown away' so it doesn't need 'tiles' to survive re-entry. It is the SRBs that 'fall off' at a lower altitude and speed and land in the ocean where they can be recovered and reused.

Ron

.

- **References:**

- ◆ **Has Discovery been doomed by a bird strike?**

- ◇ *From:* testing_h

- ◆ **Re: Has Discovery been doomed by a bird strike?**

- ◇ *From:* Don Bruder

- Prev by Date: **Cut raw quartz crystals for sale**

- Next by Date: **Electric eel**