



## STS-124 Launch Weather Forecast

**Vehicle:** Discovery / Kibo Japanese Laboratory  
**Issued:** 29 May 2008 700 EDT  
**Valid:** 31 May 2008 1657 – 1711 EDT

**Synoptic Discussion:** A high pressure ridge is located north of Florida, and easterly flow is prevalent over Kennedy Space Center (KSC). Winds will become more southeasterly on launch day. Isolated coastal showers will be in the area during the morning hours, but a sea breeze will develop in the afternoon, clearing the coast and causing showers to move inland. With this weather pattern, weather is favorable for launch, with only a slight concern for anvils returning toward the east coast from inland thunderstorms. **Our primary concern for launch is anvils moving toward KSC from the northwest.** Sunday, an upper level trough moves into Florida causing more potential for thunderstorms northwest of KSC, and an increased chance for anvils to threaten the area. Monday, there will be an increase in moisture as a weak boundary moves into North Florida increasing the potential for anvils and showers to be in the KSC area by launch time.

<u>Clouds</u>	<u>Coverage</u>	<u>Bases (feet)</u>	<u>Tops (feet)</u>
Cumulus	3/8 Scattered	3,000	5,000
<b>Weather:</b>	None		
<b>Visibility:</b>	7 miles		
<b>Wind:</b>	120° @ 10 P 17KT (60 foot pad winds)		
<b>Temperature:</b>	80°F	<b>RH:</b> 65%	<b>Dewpoint:</b> 67°F

<b>Probability of KSC weather prohibiting launch:</b>	<b>20%</b>
<b>Probability of KSC weather prohibiting tanking:</b>	<b>5%</b>
<b>Primary concern(s):</b>	Anvils
<b>Probability of KSC weather prohibiting launch for 24-hour delay:</b>	<b>30%</b>
<b>Probability of KSC weather prohibiting tanking:</b>	<b>5%</b>
<b>Primary concern(s):</b>	Anvils
<b>Probability of KSC weather prohibiting launch for 48-hour delay:</b>	<b>40%</b>
<b>Probability of KSC weather prohibiting tanking:</b>	<b>10%</b>
<b>Primary concern(s):</b>	Anvils, Showers

<b>Sunrise:</b>	31/0626 EDT 1/0625 EDT 2/0625 EDT	<b>Sunset:</b>	31/2015 EDT 1/2016 EDT 2/2016 EDT	
<b>Moonrise:</b>	31/0331 EDT 1/0410 EDT 2/0457 EDT	<b>Moonset:</b>	31/1659 EDT 1/1810 EDT 2/1923 EDT	<b>Illumination:</b>
				31 May: 14% 1 June: 7% 2 June: 2%

**Next forecast will be issued:** 30 May 2008, 0700 EDT