TRANSCRIPT FROM NOAA/GFDL EDUCATIONAL VIDEO:

THE SHRINKING ARCTIC ICE CAP

[PRODUCTION DATE: JUNE 2009; VIDEO LENGTH: APPROX 2:24]

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[music – approx 2 seconds]

ANNOUNCER [KF]: The Shrinking Arctic Ice Cap: Animations and graphics displaying results of climate model experiments conducted at NOAA's Geophysical Fluid Dynamics Laboratory.

NARRATOR [MW]: This animation shows a computer climate model projection of how summertime sea ice in the Arctic Ocean could change during the 20th and 21st centuries.

The model simulates a strong downward trend in the amount of summertime sea ice.

This downward trend is in response to changing levels of greenhouse gases and aerosols in the Earth's atmosphere.

The Arctic is expected to warm at about twice the rate of the global average - a phenomenon sometimes referred to as "Arctic amplification".

Though some uncertainties in model projections of future climate remain, results such as these, taken together with observations that document late 20th century Arctic sea ice reductions, make the Arctic a region that will continue to be studied and watched closely as atmospheric greenhouse gas levels increase.

GFDL's climate model experiments suggest that by the late 21st century, the Arctic Ocean could become almost ice free during the late summer.

This graph shows that the modeled summertime Arctic sea ice extent (the size of the area covered by sea ice) does not vary smoothly in time, as there is a good deal of year-to-year variability superimposed on the longterm downward trend.

By the end of the 21st century, the modeled summer sea ice extent usually is less than 20% of that simulated for the late 20th century.

[music – approx 40 seconds]

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