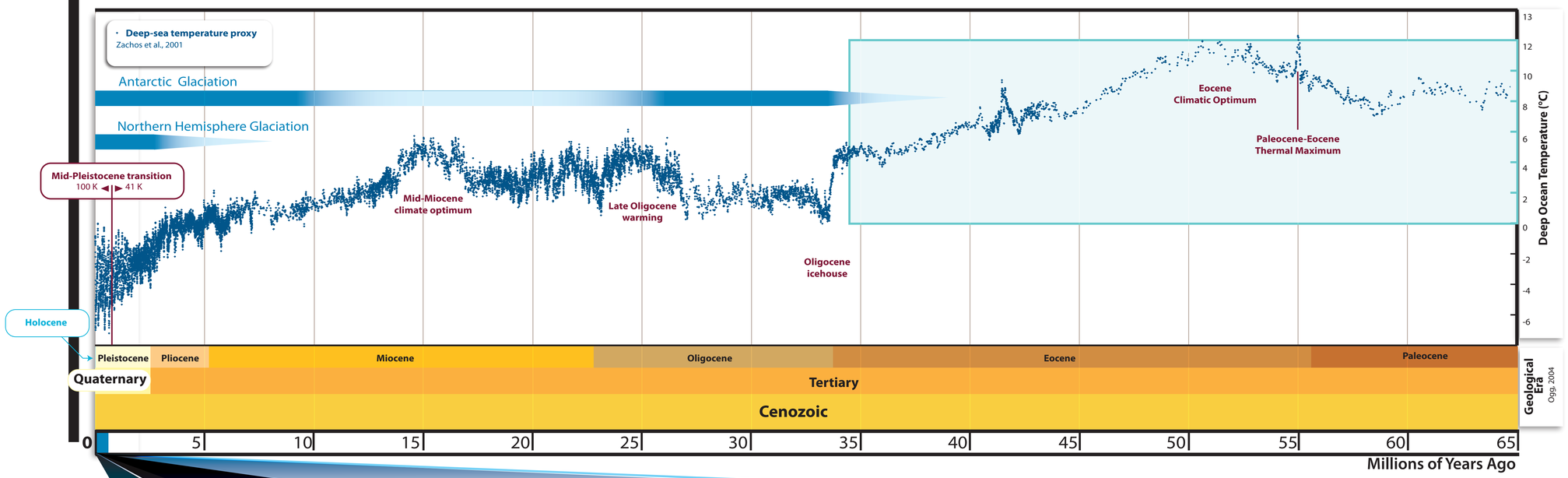
Arctic Paleoclimate Report - Named Climate Events and Time Periods

U.S. Climate Change Program Synthesis and Assessment Product 1.2

1 Global ocean temperature during the past 65 million years of Earth history derived from the oxygen-18 stable isotope ratio proxy, and the geological subdivisions of this time extent. The temperature scale provided on the right side of this portion of the diagram applies only within the time period contained within the bounding box; it is based on an ice-free ocean.



This figure provides a common time basis for the climate events and time periods that appear in this report. The zero point for all timelines at the left side is the present. Successive timelines encompass progressively shorter periods of time and contain more detail. The amount of time encompassed by each succeeding timeline is tied back to the scale of the preceding timeline by a diagonal tie line running between the two. Four timelines are presented.

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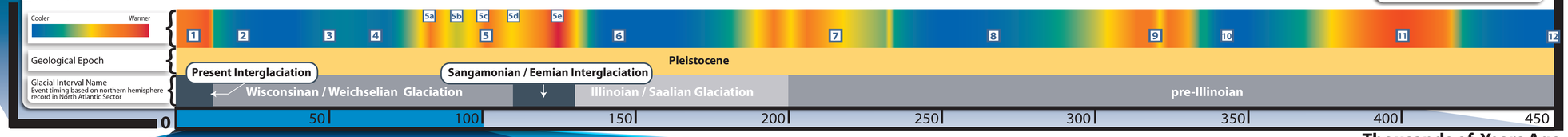
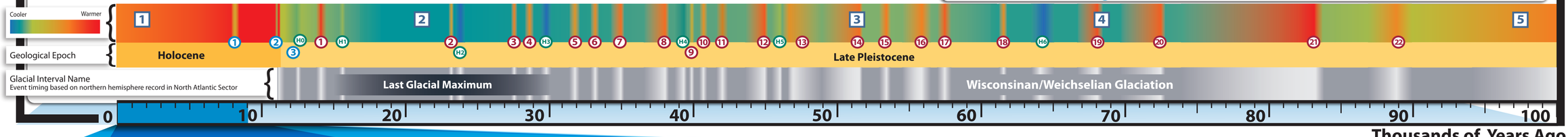
Compilation by J. J. Fitzpatrick, USGS, for CCSP SAP 1.2
Graphics by A. Swallow, J. Havens, USGS

2 The most recent 450,000 years of Earth history, and the Marine Isotope Stage nomenclature used to refer to the deep sea sediment record. More detail is available for Stage 5, than for older warm periods (Stages 7, 9, and 11). This nomenclature is coupled with the North American / Northern European terminology for successive glaciations and interglaciations during the same time period.



3 The most recent 100,000 years, which includes the late Pleistocene and Holocene record of climate events in and around the North Atlantic sector, against the backdrop of the Marine Isotope Stage nomenclature for the same time period.



4 The most recent 9,000 years and the timing of named climate events during this time. A scale for years A.D. is provided for clarity. Color bar provides information on the sense of temperature change (warmer vs. cooler) solely within the context of the 9,000 year record.

PLATE 2