ARMS 36

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:David Halpern ( CN=David Halpern/OU=OSTP/O=EOP [ OSTP ] )

CREATION DATE/TIME:11-APR-2003 14:25:13.00

SUBJECT:: FYI Re:. Press Release Re: 20th Century Climate Not So Hot

TO:pcooney@ceq.eop.gov ( pcooney@ceq.eop.gov [ CEQ ] )
READ:UNKNOWN

CC:David Halpern ( CN=David Halpern/OU=OSTP/O=EOP@EOP [ OSTP ] )
READ:UNKNOWN

TEXT:
---------- Forwarded by David Halpern/OSTP/EOP on 04/11/2003 02:23 PM ----------

David Halpern
04/11/2003 12:46:15 PM
Record Type: Record

To: Robert C. McNally/OPD/EOP@EOP
cc: Kathie L. Olsen/OSTP/EOP@EOP, Richard M. Russell/OSTP/EOP@EOP, Clifford J. Gabriel/OSTP/EOP@EOP, David Halpern/OSTP/EOP@EOP
Subject: Re: Press Release Re: 20th Century Climate Not So Hot

Robert,

Attached are the two papers referenced in the Press Release.

Please let me know if you would like additional information.

David Halpern

**********

Richard M. Russell
04/10/2003 05:19:51 PM

Record Type: Record

To: Robert C. McNally/OPD/EOP@EOP
cc: David Halpern/OSTP/EOP@EOP, Kathie L. Olsen/OSTP/EOP@EOP
bcc:
Subject: Re: Fwd: CfA: 20th CENTURY CLIMATE NOT SO HOT

Our Science division is tracking it down. They will get it if it can be gotten. Dr. David Halpern will be sending it to you directly. He will also be able to answer any question you have about the study.

Robert C. McNally
04/10/2003 05:11:58 PM
Record Type: Record

To: Richard M. Russell/OSTP/EOP@EOP
cc:
bcc:
Subject: Re: Fwd: CfA: 20th CENTURY CLIMATE NOT SO HOT

If this is funded by NASA, can we get an advance copy?

Richard M. Russell
04/10/2003 05:08:41 PM

Record Type: Record

To: Robert C. McNally/OPD/EOP@EOP
cc:
Subject: Fwd: CfA: 20th CENTURY CLIMATE NOT SO HOT

[redacted]

---------- Forwarded by Richard M. Russell/OSTP/EOP on 04/10/2003 05:07 PM ----------

Kathie L. Olsen
04/10/2003 04:49:32 PM
Record Type: Record

To: John H. Marburger/OSTP/EOP@EOP, Richard M. Russell/OSTP/EOP@EOP
cc:
Subject: Fwd: CfA: 20th CENTURY CLIMATE NOT SO HOT

This is the article I forwarded to Phil.

>
>THE FOLLOWING RELEASE WAS RECEIVED FROM THE HARVARD-SMITHSONIAN
>CENTER FOR ASTROPHYSICS, IN CAMBRIDGE, MASSACHUSETTS, AND IS
>FORWARDED FOR YOUR INFORMATION. (FORWARDING DOES NOT IMPLY
>ENDORSEMENT BY THE AMERICAN ASTRONOMICAL SOCIETY.) Steve Maran,
>American Astronomical Society
>
>Contacts:
>David Aguilar
>617-495-7462
>daguilar@cfa.harvard.edu
>
>Christine Lafon
>617-495-7463
>clafon@cfa.harvard.edu
>

>Release No: 03-10
>For Immediate Release
>
>NOTE TO EDITORS: Photos of key climate indicators are available online at
>http://cfa-www.harvard.edu/press/pr0310image.html
>
>20th CENTURY CLIMATE NOT SO HOT
>
>Cambridge, MA -- A review of more than 200 climate studies led by
>researchers at the Harvard-Smithsonian Center for Astrophysics has
>determined that the 20th century is neither the warmest century nor
>the century with the most extreme weather of the past 1000 years. The
>review also confirmed that the Medieval Warm Period of 800 to 1300
>A.D. and the Little Ice Age of 1300 to 1900 A.D. were worldwide
>phenomena not limited to the European and North American continents.
>While 20th century temperatures are much higher than in the Little
>Ice Age period, many parts of the world show the medieval warmth to
>be greater than that of the 20th century.
>
>Smithsonian astronomers Willie Soon and Sallie Baliunas, with
>co-authors Craig Idso and Sherwood Idso (Center for the Study of
>Carbon Dioxide and Global Change) and David Legates (Center for
>Climatic Research, University of Delaware), compiled and examined
>results from more than 240 research papers published by thousands of
>researchers over the past four decades. Their report, covering a
>multitude of geophysical and biological climate indicators, provides
>a detailed look at climate changes that occurred in different regions
>around the world over the last 1000 years.
>
>"Many true research advances in reconstructing ancient climates have
>occurred over the past two decades," Soon says, "so we felt it was
>time to pull together a large sample of recent studies from the last
>5-10 years and look for patterns of variability and change. In fact,
>clear patterns did emerge showing that regions worldwide experienced
>the highs of the Medieval Warm Period and lows of the Little Ice Age,
>and that 20th century temperatures are generally cooler than during
>the medieval warmth."
>
>Soon and his colleagues concluded that the 20th century is neither
>the warmest century over the last 1000 years, nor is it the most
>extreme. Their findings about the pattern of historical climate
>variations will help make computer climate models simulate both
>natural and man-made changes more accurately, and lead to better
>climate forecasts especially on local and regional levels. This is
>especially true in simulations on timescales ranging from several
>decades to a century.
>
>--Historical Cold, Warm Periods Verified--
>
>Studying climate change is challenging for a number of reasons, not
>the least of which is the bewildering variety of climate indicators -
>all sensitive to different climatic variables, and each operating on
>slightly overlapping yet distinct scales of space and time. For
>example, tree ring studies can yield yearly records of temperature
>and precipitation trends, while glacier ice cores record those
>variables over longer time scales of several decades to a century.
>
>Soon, Baliunas and colleagues analyzed numerous climate indicators
>including: borehole data; cultural data; glacier advances or
>retreats; geomorphology; isotopic analysis from lake sediments or ice

>cores, tree or peat celluloses (carbohydrates), corals, stalagmite or
>biological fossils; net ice accumulation rate, including dust or
>chemical counts; lake fossils and sediments; river sediments; melt
>layers in ice cores; phenological (recurring natural phenomena in
>relation to climate) and paleontological fossils; pollen; seafloor
>sediments; luminescent analysis; tree ring growth, including either
>ring width or maximum late-wood density; and shifting tree line
>positions plus tree stumps in lakes, marshes and streams.
>
>"Like forensic detectives, we assembled these series of clues in
>order to answer a specific question about local and regional climate
>change: Is there evidence for notable climatic anomalies during
>particular time periods over the past 1000 years?" Soon says. "The
>cumulative evidence showed that such anomalies did exist."
>
>The worldwide range of climate records confirmed two significant
>climate periods in the last thousand years, the Little Ice Age and
>the Medieval Warm Period. The climatic notion of a Little Ice Age
>interval from 1300 to1900 A.D. and a Medieval Warm Period from 800 to
>1300 A.D. appears to be rather well-confirmed and wide-spread,
>despite some differences from one region to another as measured by
>other climatic variables like precipitation, drought cycles, or
>glacier advances and retreats.
>
>"For a long time, researchers have possessed anecdotal evidence
>supporting the existence of these climate extremes," Baliunas says.
>"For example, the Vikings established colonies in Greenland at the
>beginning of the second millennium that died out several hundred
>years later when the climate turned colder. And in England, vineyards
>had flourished during the medieval warmth. Now, we have an
>accumulation of objective data to back up these cultural indicators."
>
>The different indicators provided clear evidence for a warm period in
>the Middle Ages. Tree ring summer temperatures showed a warm interval
>from 950 A.D. to 1100 A.D. in the northern high latitude zones, which
>corresponds to the "Medieval Warm Period." Another database of tree
>growth from 14 different locations over 30-70 degrees north latitude
>showed a similar early warm period. Many parts of the world show the
>medieval warmth to be greater than that of the 20th century.
>
>The study -- funded by NASA, the Air Force Office of Scientific
>Research, the National Oceanic and Atmospheric Administration, and
>the American Petroleum Institute -- will be published in the Energy
>and Environment journal. A shorter paper by Soon and Baliunas
>appeared in the January 31, 2003 issue of the Climate Research
>journal.
>
>Headquartered in Cambridge, Massachusetts, the Harvard-Smithsonian
>Center for Astrophysics (CfA) is a joint collaboration between the
>Smithsonian Astrophysical Observatory and the Harvard College
>Observatory. CfA scientists organized into six research divisions
>study the origin, evolution, and ultimate fate of the universe.
>
>----------
>IF YOU DO NOT WISH TO CONTINUE RECEIVING PRESS RELEASES THAT ARE
>FORWARDED TO THE NEWS MEDIA VIA THE AMERICAN ASTRONOMICAL SOCIETY,
>PLEASE REPLY ACCORDINGLY TO ANY INCOMING PRESS RELEASE, OR WRITE
>TO hrsmaran@eclair.gsfc.nasa.gov. Requests for referrals to experts
>should be sent to the same address.

--
Anne L. Kinney
Director, Astronomy and Physics Division
Office of Space Science
NASA Headquarters

For appointments, call Jane Davis at 202-358-2150

========== ATTACHMENT 1 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert NSREOP0101:[ATTACH.D89]SREOP01300FJWZA.001 to ASCII,
The following is a HEX DUMP:

```
255044462D312E330D25E2E3CFD30D0A3130332030206F626A0D3C3C200D2F4C696E656172697A
65642031200D2F4F20313035200D2F48205B2039313720353938205D200D2F4C20393430353538
200D2F4520343639333200D2F4E203232200D2F542039333833739200D3E3E200D656E646F62
6A0D2020202020202020202020202020202020202020202020202020202020202020202020
2020202020202020202020202020202020787265660D313033203232200D3030303030303031
362030303030303030206E200D3030303030303037393120303030303030206E200D30303030303031
313520303030303030206E200D3030303030303136373220303030303030206E200D303030303030
383032203030303030206E200D3030303030303033303236203030303030206E200D3030303030
333236312030303030303030206E200D3030303030303033343937203030303030206E200D30303030
303437323120303030303030206E200D3030303030303038313930203030303030206E200D303030
303039343133203030303030206E200D3030303030303039363433203030303030206E200D3030
303032313534302030303030303030206E200D3030303030303333383533203030303030206E200D30
303030333373030203030303030206E200D3030303030303333430363920303030303030206E200D
303030303333393631203030303030206E200D3030303030303334323834203030303030206E20
303030303033343137372030303030303030206E200D3030303030303031343933203030303030206E
0D3030303030303039313720303030303030206E200D3030303030303031343933203030303030206E
200D747261696C65720D3C3C0D2F53697A6520313235 0D2F496E666F20313031203020 52200D2F
526F6F74203130342030 2052200D2F5072657620393338333638200D2F49445B3C356634656637
34353731366331626437313436356631336134636635643961393E3C3566346566373435373136
6331626437313436356631336134636635643961393E5D0D3E3E0D737461727478726 5660D300D
2525454F460D202020200D3130342030206F626A0D3C3C200D2F54797065202F436174616C6F67
200D2F506167657320383820302052200D2F4D6574616461746120313032203020 52200D2F4A54
203130302030 2052200D2F506167654C6162656C732038362030 2052200D2F4F75746C696E6573
20383420302052200D3E3E200D656E646F626A0D3132332030206F626A0D3C3C202F5320353535
202F4F20363530202F4C20363636202F46696C746572202F466C6174654656 36F6465202F4C65
6E6774682031323420302052203E3E200D737472616D0D0A48896260606006A2A90CAC0C0C3C
EF19841910401828C6C6C0C2C05101E438C285456A1AF86E304532441C606F63ACFA5D22FCDD85
A19F41C881E90C43C2014E3346B706C50AD6598C7A0C9A0C2C931A963408470035554B4CD9B9CE
5BD22BB0BF7AAEB80D9225CC220E5D069BFC2DAE3073387AEA1CE1B559DCCCF1C8DF60092F8F72
A7CDA1092606735A35665B7CF23558C2ECA3CAEFF0C83732A88747F5A8C0263FC3A67E870B872C
269FD16476C630A48977CB9C3645D6D44BDE158F2F182C76E2BD76A94862A64030A7CEE2793657
6472355C44141E954EEA343974A1E2F1619876490E73179143DE1A8F2F545CB89BA236DF627ABF
11D3041385DB9E2792340EF95A7C610219ABD4A372B9DF717A50E786434542711A87FD6C199A73
D5153B16739A3CBE90A27057A1C44BE5F00593E70D9F81E03288F86CF019CEBE0CE7C2242F2354
187C0201200997FCFCF993C1E74F3070E91312F3C3850B0C400C040C1790295C00214D5E1C0281
3303EFAC38202D04C4CA601153067E860B8C262A33B813C41EAA1C5BC332893169A700CBA6170C
3C0DBC07A41BCC19720E95A80480940A30A800C92B421E2A1D9C1D290AFAD38D18D6BBDF634861
DF014B0C210C7CAEDC409A11888D813814C8B703D24C401C0C106000CBC7168C0D656E64737472
65616D0D656E646F626A0D3132342030206F626A0D343735200D656E646F626A0D313035203020
```