Identification_Information:
  Citation:
   Citation_Information:
     Originator: U.S. Geological Survey
     Publication_Date: 20070101
     Title: Akikukchiak Fire of Noatak National Preserve - 2005
     Geospatial_Data_Presentation_Form:
       Raster digital data.
       Vector data are also available as ArcView Shape Files.
     Publication_Information:
       Publication_Place: Sioux Falls, South Dakota USA
       Publisher: U.S. Geological Survey
     Online_Linkage: http://edc.usgs.gov
  Description:
   Abstract:
     The U.S. Geological Survey (USGS) has entered into a cooperative
     agreement with the National Park Service (NPS) to deliver satellite
     imagery and derivitive products centered on major fires that
     impact national parks and other federal lands. This data set was
     compiled at the request of a federal land management agency and is
     part of a suite of products generated for a specific fire.
     See the National Burn Severity Mapping web site at:
     http://edc2.usgs.gov/fsp/severity/fire_main.asp
   Purpose:
     The purpose of this project is to develop a robust mapping
     methodology and consistent data products that allow federal land
     managers and fire ecologists to evaluate and compare burn severity
     within individual fires and between fires across various
     ecosystems. These products will help land managers to more
     effectively plan, implement and monitor fire recovery activities.
   Supplemental_Information:
     Fire Names: Akikukchiak
     Agency: National Park Service
     Land Management Unit: Noatak National Preserve
     Date of Fire: 06/17/2005
     Type of assessment: Extended
     Acres within Fire Perimeter: 1370
     Landsat Path and Row: 80/12
     Pre-Fire Landsat Date/Scene ID:
     Landsat 7; June 25, 2002/LE7080012000217650
     Post-Fire Landsat Date/Scene ID:
     Landsat 7; July 6, 2006/LE7080012000618750
     Output Dataset Projection: Alaska Albers Conical Equal Area
     Datum Name: NAD83
     Spheroid Name: GRS80
     1st Parallel: 55 00 00 N
     2nd Parallel: 65 00 00 N
     Central Meridian: -154 00 00
     Lat of Origin: 50 00 00
     Northing: 0.0
     Easting: 0.0

Image subset Corner Coordinate (center of upper left pixel, projection meters)
ULX: -305700   LRX: -296610
ULY: 2020140   LRY: 2009550
Image subset size:
#Rows: 354
#Columns: 304
Pixel size: 30 meters
Bounding Box:
North Lat: 67 59 43 N
South Lat: 67 54 03 N
East Long: 161 02 09 W
West Long: 161 15 07 W
Latitude and Longitude within Fire Perimeter:
Lat: 67 56 31 N
Long: 161 09 09 W

Fire Perimeter: Perimeters manually digitized from 07/25/2005 Post fire Landsat 5 image

For further information on NLAPS and Landsat TM data, please refer to the metadata
documentation found on the USGS Clearinghouse website at:
http://www.fgdc.gov/clearinghouse/clearinghouse.html

Product List:

akik05b_pretm.tif
Pre-Fire Landsat data subset (bands 1-5,7 Geo-TIFF format)

akik05b_postm.tif
Post-Fire Landsat data subset (bands 1-5,7 Geo-TIFF format)

akik05b_dnbr
Differenced Normalized Burn Ratio (DNBR) subset (ArcInfo GRID)

akik05b_pi
Fire Perimeter (shape file)

akik05b_hist.xls
DNBR pixel count within the fire perimeter (excel file)

d801206020706
Full Scene DNBR (ArcInfo GRID)

Time_Period_of_Content:
 Time_Period_Information:
  Multiple_Dates/Times:
   Single_Date/Time:
    Calendar_Date: 20020625 (pre-fire image)
   Single_Date/Time:
    Calendar_Date: 20050617 (date fire began)
   Single_Date/Time:
    Calendar_Date: 20060706 (post-fire image)
 Currentness_Reference: ground condition

Status:
  Progress: Complete
  Maintenance_and_Update_Frequency: as needed
Spatial_Domain:
  Bounding_Coordinates:
    West_Bounding_Coordinate: -161.15.07
    East_Bounding_Coordinate: -161.02.09
    North_Bounding_Coordinate: 67.59.43
    South_Bounding_Coordinate: 67.54.03
Keywords:
  Theme:
    Theme_Keyword_Thesaurus: none
    Theme_Keyword: burn mapping
    Theme_Keyword: imagery
    Theme_Keyword: fire
    Theme_Keyword: Landsat
    Theme_Keyword: National Park Service
  Place:
    Place_Keyword_Thesaurus: none
    Place_Keyword: Noatak National Preserve
    Place_Keyword: Akikukchiak
    Place_Keyword: Alaska
Access_Constraints: FTP data sets are available to any user.
Use_Constraints: There are no restrictions on use, except for reasonable and proper acknowledgement of information sources.
Point_of_Contact:
  Contact_Information:
    +001 605-594-6151 or (USA) 800-252-4547
    Contact_Organization_Primary:
      Contact_Organization: U.S. Geological Survey
    Contact_Position: CSR
    Contact_Voice_Telephone: +001 605-594-6151
    Contact_Address:
      Address_Type: physical and mailing address
      Address: 47914 252nd Street
      City: Sioux Falls
      State_or_Province: SD
      Postal_Code: 57198-0001
      Country: USA
    Contact_TDD/TTY_Telephone: +001 605-594-6933
    Contact_Voice_Telephone: +001 605-594-6151
    Contact_Facsimile_Telephone: +001 605-594-6589
    Contact_Electronic_Mail_Address: fsedc@usgs.gov
    Hours_of_Service: 0800 - 1600 CT, M-F, -6 h GMT
    Contact_Instructions: http://edc2.usgs.gov/fsp/severity/contact_us.asp

  Data_Set_Credit: USGS and NASA
  Native_Data_Set_Environment: Oracle, ERDAS Imagine, & ArcInfo
Data_Quality_Information:
 Attribute_Accuracy:
   Attribute_Accuracy_Report:
     Three on-board calibrators (two solar, one internal) provide an absolute
     accuracy of 5 percent, excluding band 6.

Logical_Consistency_Report:
  These Landsat data are collected from a nominal altitude of 705 kilometers
  in a near-polar, near-circular, sun-synchronous orbit at an inclination of
  98.2 degrees, imaging the same 183-km swath of Earth's surface every 16 days.
  The pixels representing the bands for the image are in the data set only once.
Completeness_Report: Fire perimeter was automated, (seed value 425, distance 325) with manual edits.

Positional_Accuracy:
  Horizontal_Positional_Accuracy:
   Horizontal_Positional_Accuracy_Report:
    Energy reflected from Earth's surface passes through a whisk-broom scanning
    system and all-reflective optics before being collected by the solid-state
    detectors at the focal plane.
Lineage:
  Process_Step:
   Process_Description:
    These data products are derived from Landsat Thematic Mapper data.
    A pre-fire scene and a post-fire scene are analyzed to create a
    Differenced Normalized Burn Ratio (DNBR) image. The DNBR image portrays
    the variations of burn severity within the fire.

    The Landsat images are terrain corrected and geometrically rectified
    to an Albers Conical Equal Area map projection using the National
    Landsat Archive Production System (NLAPS). The images are further
    processed to convert bands 1-5 and 7 to at-satellite-reflectance.
    The Normalized Burn Ratio (NBR) is computed for each date of imagery
    using the following formula:
    (Band 4 - Band 7) / (Band 4 + Band 7) = NBR

    The differenced NBR is computed by subtracting the post-fire NBR from
    the pre-fire NBR:
    PreNBR - PostNBR = DNBR

    Higher DNBR values are correlated with more severe burns. The DNBR
    image is evaluated to determine the threshold value between burned and
    unburned areas. The perimeter of the fire is delineated using the DNBR
    image. The DNBR image, the pre-fire and post-fire TM images, and a
    fire perimeter vector file are provided in digital format in the map
    projection used by the National Park Service.
   Source_Used_Citation_Abbreviation: TM
   Process_Date: 200701
   Source_Produced_Citation_Abbreviation: DNBR
  Cloud_Cover: 10
Distribution_Information:
 Distributor:
  Contact_Information:
   Contact_Organization_Primary:
    Contact_Organization: U.S. Geological Survey
   Contact_Position:
    Principal Scientist
    Land Cover Applications
   Contact_Address:

      Address_Type: mailing and physical address
      Address:
       47914 252nd Street
       USGS EROS
      City: Sioux Falls
      State_or_Province: SD
      Postal_Code: 57198-0001
      Country: USA

      Contact_Voice_Telephone: +001 605-594-6151
      Contact_TDD/TTY_Telephone: +001 605 594-6933
      Contact_Facsimile_Telephone: +001 605 594-6589
      Contact_Electronic_Mail_Address: fsedc@usgs.gov
      Hours_of_Service: 0800 - 1600 CT, M-F, -6 h GMT
      Contact_Instructions: http://edc2.usgs.gov/fsp/severity/contact_us.asp
  Distribution_Liability:
   No warranty expressed or implied is made by the USGS regarding the use
   of the data, nor does the act of distribution constitute any such warranty.
  Standard_Order_Process:
   Digital_Form:
    Digital_Transfer_Information:
     Format_Name: Geo-TIFF
     Format_Version_Number: 1
    Digital_Transfer_Option:
     Online_Option:
      Computer_Contact_Information:
       Network_Address:
        Network_Resource_Name: http://edc2.usgs.gov/fsp/severity/download_data.asp
   Digital_Form:
    Digital_Transfer_Information:
     Format_Name: DNBR ArcInfo GRID

     Format_Version_Number: 1
    Digital_Transfer_Option:
     Online_Option:
      Computer_Contact_Information:
       Network_Address:
        Network_Resource_Name: http://edc2.usgs.gov/fsp/severity/download_data.asp
   Digital_Form:
    Digital_Transfer_Information:
     Format_Name: shape file
     Format_Version_Number: 1
    Digital_Transfer_Option:
     Online_Option:
      Computer_Contact_Information:
       Network_Address:
        Network_Resource_Name: http://edc2.usgs.gov/fsp/severity/download_data.asp
  Fees: No charge
  Ordering_Instructions: http://edc2.usgs.gov/fsp/severity/help.asp#ordering
  Turnaround: same day
Metadata_Reference_Information:
 Metadata_Date: 20070111

Metadata_Contact:
 Contact_Information:
   Contact_Organization_Primary:
     Contact_Organization:
       USGS EROS
       Science & Applications Branch
   Contact_Position:
     Principal Scientist
     Land Cover Applications
   Contact_Address:
     Address_Type: mailing and physical address
     Address:
       47914 252nd Street
       USGS EROS
     City: Sioux Falls
     State_or_Province: SD
     Postal_Code: 57198-0001
     Country: USA
   Contact_Voice_Telephone: +001 605-594-6151
   Contact_TDD/TTY_Telephone: +001 605-594-6933
   Contact_Facsimile_Telephone: +001 605-594-6589
   Contact_Electronic_Mail_Address: fsedc@usgs.gov
   Hours_of_Service: 0800 - 1600 CT, M-F, -6 h GMT
   Contact_Instructions: http://edc2.usgs.gov/fsp/severity/contact_us.asp
Metadata_Standard_Name: Content Standard for Digital Geospatial Metadata
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Access_Constraints: none
Metadata_Use_Constraints: none