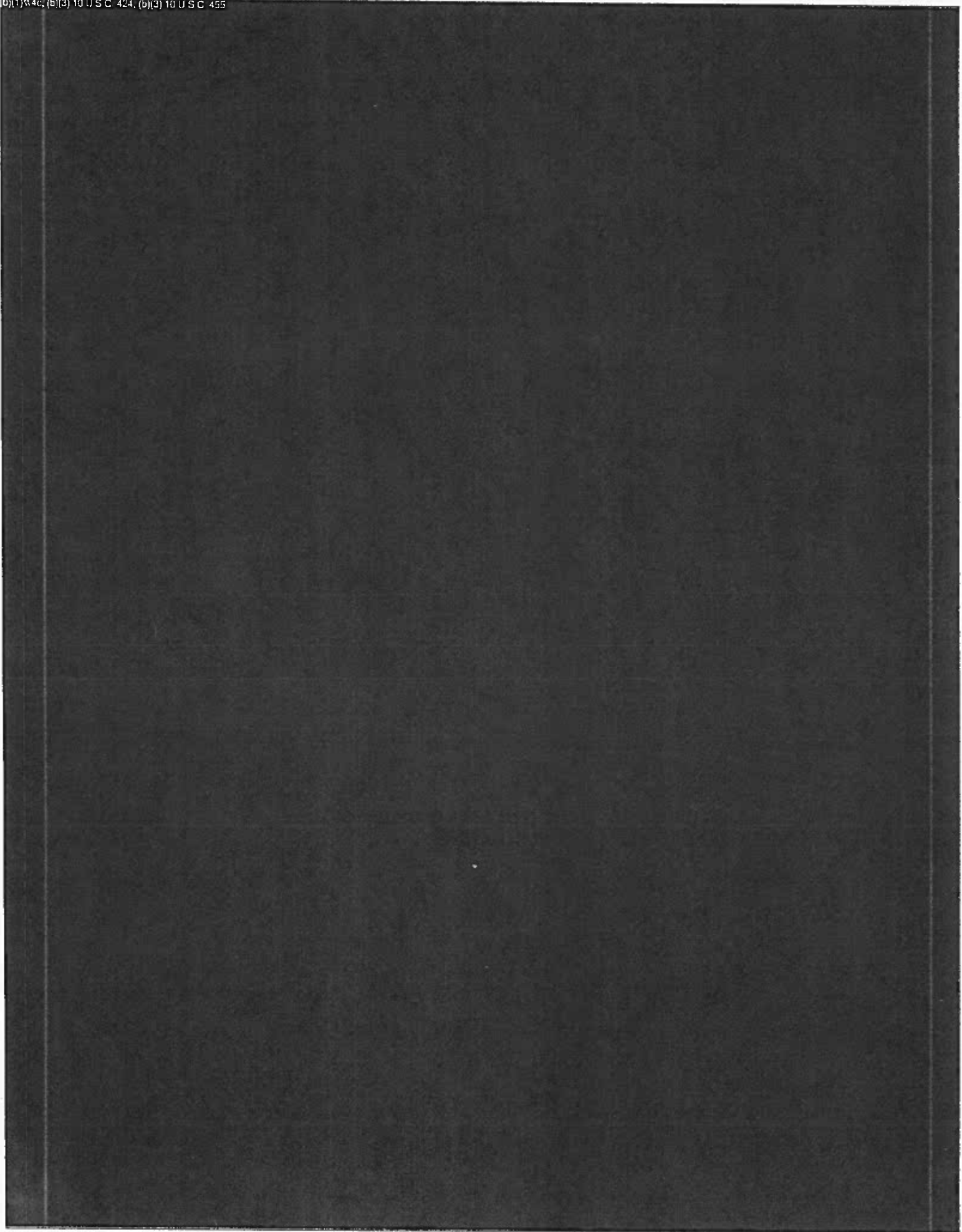


(b)(1) & (4); (b)(3) 10 U.S.C. 424, (b)(3) 10 U.S.C. 455



(b)(1)1.4c, (b)(3) 10 U.S.C. 424, (b)(3) 10 U.S.C. 455

(b)(1)1.4c

(b)(1)1.4c, (b)(3) 10 U.S.C. 424, (b)(3) 10 U.S.C. 455

(U)

(b)(1)1.4c, (b)(3) 10 U.S.C. 424

(b)(1)1.4c, (b)(3) 10 U.S.C. 424

imagery gave decision makers and responders a common view of the disasters.

(U) WE'VE ALL SEEN IMAGES OF THE DEVASTATION AND HUMAN HEARTACHE WROUGHT BY HURRICANES KATRINA AND RITA, but perhaps few people realize that the NRO, in collaboration with its mission partners, provided valuable support to recovery efforts.

(U)

(b)(3) 10 U.S.C. 424

(b)(3) 10 U.S.C. 424

**(U) First Response**

(b)(1)1.4c

(b)(1)1.4c

(b)(1)1.4c

(b)(1)1.4c, (b)(3) 10 U.S.C. 424

(b)(1)1.4c, (b)(1)1.4e, (b)(1)1.4g, (b)(3) 10 U.S.C. 424

<sup>1</sup> (U) Collection is in compliance with law (Executive Order 12333). Legal authorization to collect domestic imagery for this purpose has been obtained.

(Photo is UNCLASSIFIED.)

(U) Aerial image of damage from Hurricane Katrina. Photo courtesy of National Oceanic and Atmospheric Administration.

(b)(1)1.4c, (b)(3) 10 U.S.C. 424, (b)(3) 10 U.S.C. 455

(b)(1)1.4c

(b)(1)1.4c, (b)(3) 10 U.S.C. 424, (b)(3) 10 U.S.C. 455

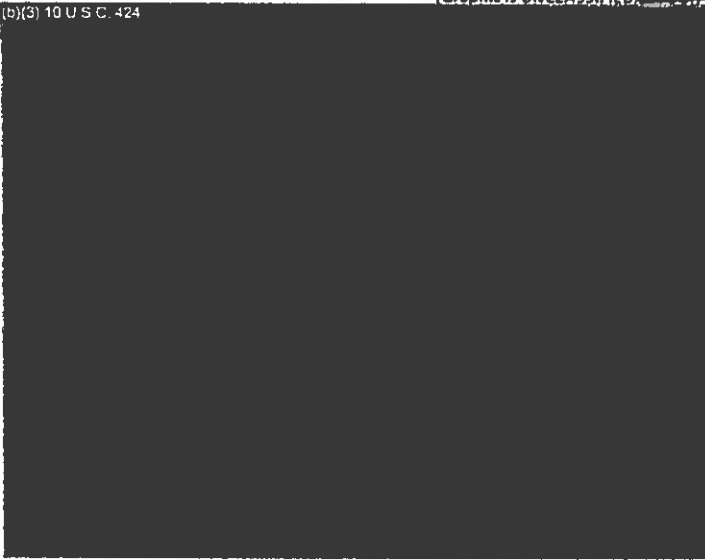
(b)(1)1.4c

(Graphic is UNCLASSIFIED//~~FOUO~~)

(b)(1)1.4c When disaster strikes, (b)(1)1.4c, (b)(3) 10 U.S.C. 424

information gives FEMA and other first responders a quick "big picture" perspective necessary to determine what areas are in most urgent need for rescue and relief—sort of a disaster triage—and the type of response needed. The information also guides transportation and logistics decisions, by determining the accessibility of key roads, rail lines, bridges, ports, and airports.

(b)(1)1.4c (b)(1)1.4c, (b)(3) 10 U.S.C. 424 is a key to the provision of unclassified damage assessment maps and Web site postings for first responders. These products guide response efforts by showing the severity, type, and location of damage. For instance, areas in Gulf Port, Mississippi, suffered extensive storm surge and wind destruction, whereas large parts of the city of New Orleans suffered flooding due to levee breaches. These situations called for different types of response. (b)(1)1.4c (b)(1)1.4c, (b)(1)1.4g, (b)(3) 10 U.S.C. 424



(Graphic is UNCLASSIFIED.)

(b)(3) 10 U.S.C. 424, (b)(3) 10 U.S.C. 455



(b)(1)1.4c, (b)(1)1.4c, (b)(1)1.4g, (b)(3) 10 U.S.C. 424

(b)(1)1.4c (b)(1)1.4c, (b)(3) 10 U.S.C. 424

(b)(1)1.4c, (b)(3) 10 U.S.C. 424

(U) (b)(3) 10 U.S.C. 424

(b)(3) 10 U.S.C. 424 Commercial imagery has the advantage of giving a broad area view, for instance showing the wide extent of flooding. Unclassified (b)(3) 10 U.S.C. 424 products can be disseminated to a broad responder audience, enabling military and civil agencies to determine effective courses of action over widespread areas.

(U) NGA graphics showing flooding from Hurricane Katrina.

(b)(1)1.4c (b)(1)1.4c, (b)(1)1.4c, (b)(1)1.4g, (b)(3) 10 U.S.C. 424  
(b)(1)1.4c, (b)(1)1.4c, (b)(1)1.4g, (b)(3) 10 U.S.C. 424

**(U) Infrastructure Damage Assessment**

(b)(1)1.4c (b)(1)1.4c, (b)(3) 10 U.S.C. 424  
(b)(1)1.4c, (b)(3) 10 U.S.C. 424  
(b)(1)1.4c, (b)(3) 10 U.S.C. 424 (b)(1)1.4c  
(b)(1)1.4c  
(b)(1)1.4c

for example, imagery showed that the Interstate 10 Bridge crossing Lake Ponchartraine—one of the primary bridges in and out of the northeastern quarter of New Orleans—was impassible (b)(1)1.4c, (b)(1)1.4g, (b)(3) 10 U.S.C. 424

(b)(1)1.4c

(b)(1):4c

(Graphic is UNCLASSIFIED//~~FOUO~~)

(b)(3) 10 U.S.C. 424

(b)(3) 10 U.S.C. 424

(b)(1):4c

(b)(1)1.4c

(b)(1)1.4c, (b)(1)1.4g, (b)(3) 10 U.S.C. 424  
In addition, (b)(1)1.4c, (b)(1)1.4g, (b)(3) 10 U.S.C. 424  
(b)(1)1.4c, (b)(1)1.4g, (b)(3) 10 U.S.C. 424  
(b)(1)1.4c, (b)(1)1.4g, (b)(3) 10 U.S.C. 424 with estimates that  
repair or replacement of (b)(1)1.4c, (b)(1)1.4g, (b)(3) 10 U.S.C. 424 could  
take over one year to complete.  
(b)(1)1.4c (b)(1)1.4c, (b)(1)1.4g, (b)(3) 10 U.S.C. 424  
(b)(1)1.4c, (b)(1)1.4g, (b)(3) 10 U.S.C. 424  
(b)(1)1.4c  
(b)(1)1.4c (b)(1)1.4c, (b)(3) 10 U.S.C. 424

maps showed, in a glance, the status of airfields and whether an airfield could accommodate large military transport aircraft, such as C-130s, to deliver supplies critical to saving lives and protecting property, or passenger jets to evacuate people.  
(b)(1)1.4c Imagery also showed the locations of levee breaches, which helped the U.S. Army Corps of Engineers plan and carry out patching operations. (b)(1)1.4c, (b)(1)1.4g, (b)(3) 10 U.S.C. 424

(b)(1)1.4c, (b)(1)1.4g, (b)(3) 10 U.S.C. 424  
(b)(1)1.4c (b)(1)1.4c, (b)(1)1.4g, (b)(3) 10 U.S.C. 424

(b)(1)1.4c, (b)(1)1.4g, (b)(3) 10 U.S.C. 424

(b)(1)1.4c, (b)(1)1.4g, (b)(3) 10 U.S.C. 424  
(b)(1)1.4c (b)(1)1.4c, (b)(3) 10 U.S.C. 424  
(b)(1)1.4c, (b)(3) 10 U.S.C. 424

(b)(1)1.4c, (b)(3) 10 U.S.C. 424

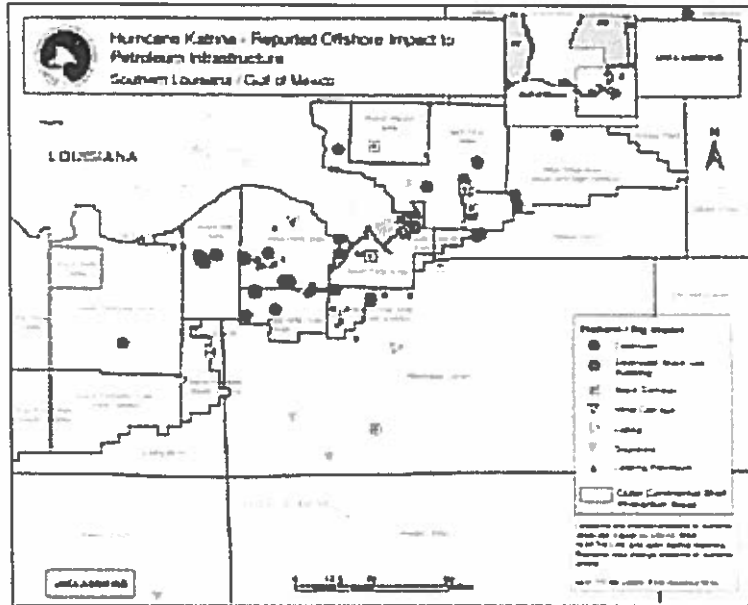
(b)(1)1.4c, (b)(3) 10 U.S.C. 424

The storm displaced a number of these structures, breaking them free from their riggings, including one oil platform that lodged against a bridge in Biloxi, Mississippi. Several damaged petroleum structures leaked oil or natural gas.

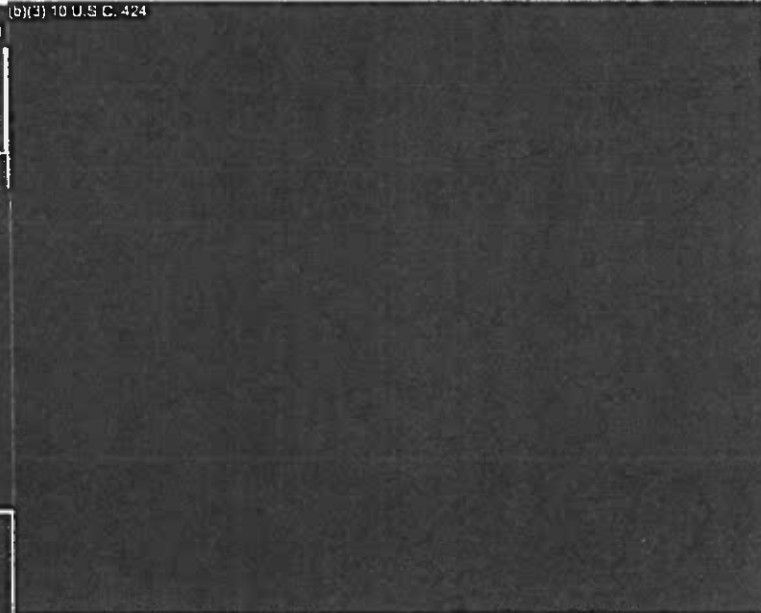
(b)(1)1.4c (b)(1)1.4c, (b)(1)1.4g, (b)(3) 10 U.S.C. 424  
(b)(1)1.4c, (b)(1)1.4g, (b)(3) 10 U.S.C. 424

(b)(1)1.4c (b)(1)1.4c, (b)(1)1.4g, (b)(3) 10 U.S.C. 424  
(b)(1)1.4c, (b)(1)1.4g, (b)(3) 10 U.S.C. 424

(Graphic is UNCLASSIFIED.)



(Graphic is UNCLASSIFIED.)



(b)(1)1.4c

(b)(1)1.4c

(b)(1)1.4c (b)(1)1.4c, (b)(3) 10 U.S.C. 424 (b)(1)1.4c, (b)(3) 10 U.S.C. 424

determine airfield status and availability for recovery operations.

(b)(1)1.4c, (b)(1)1.4e, (b)(1)1.4g, (b)(3) 10 U.S.C. 424

**(U) Environmental Impact**

(b)(1)1.4c (b)(1)1.4c, (b)(1)1.4g, (b)(3) 10 U.S.C. 424 (b)(1)1.4c, (b)(1)1.4g, (b)(3) 10 U.S.C. 424



(Graphic is UNCLASSIFIED.)

(b)(1)1.4c, (b)(1)1.4g, (b)(3) 10 U.S.C. 424 (b)(1)1.4c (b)(1)1.4c, (b)(1)1.4e, (b)(1)1.4g, (b)(3) 10 U.S.C. 424 (b)(1)1.4c, (b)(1)1.4e, (b)(1)1.4g, (b)(3) 10 U.S.C. 424

also helped environmental scientists assess the hurricanes' effect on hazmat sites and (b)(1)1.4c, (b)(3) 10 U.S.C. 424 stemming from hurricane damage or flooding (b)(1)1.4c, (b)(1)1.4g, (b)(3) 10 U.S.C. 424

(b)(1)1.4c, (b)(1)1.4g, (b)(3) 10 U.S.C. 424 (b)(1)1.4c (b)(1)1.4c, (b)(1)1.4g, (b)(3) 10 U.S.C. 424

(b)(1)1.4c, (b)(1)1.4g, (b)(3) 10 U.S.C. 424 The flooding of such plants not only cut off the availability of fresh water, but also contributed to environmental health hazards.

**(U) Other NRO Support**

(b)(1)1.4c The Operational Support Office (OSO) of NRO's Directorate for Military Support deployed (b)(1)1.4c, (b)(3) 10 U.S.C. 424 communications equipment and operators to Stennis Space Center, Mississippi, for (b)(1)1.4c, (b)(1)1.4g, (b)(3) 10 U.S.C. 424 data to the Naval Oceanographic Office' (NAVO). (b)(1)1.4c, (b)(3) 10 U.S.C. 424

(b)(1)1.4c, (b)(3) 10 U.S.C. 424 (b)(1)1.4c, (b)(3) 10 U.S.C. 424 (b)(1)1.4c, (b)(3) 10 U.S.C. 424 (b)(1)1.4c

(b)(3) 10 U.S.C. 424 For more information on OSO's Buzz Lite support to NAVO, see article on page 14.

(b)(1)1.4c