NR_key_name:	94FE3492DB38DE68852565520072BA74
SendTo:	ALL
CopyTo:	
DisplayBlindCopyTo:	
BlindCopyTo: From:	CN=Douglas Horne/O=ARRB
DisplayFromDomain:	
DisplayDate:	11/17/1997
DisplayDate_Time:	3:53:18 PM
ComposedDate:	11/17/1997
ComposedDate_Time:	3:53:08 PM
Subject:	Digitization and Enhancement of JFK Autopsy Photographic Images by Kodak
	11/13/97Agecny Name: Witnesses/ConsultantsAttendees: Doug Horne, Jeremy Gunn, Steve Tilley, Steve
	Hamilton, and Numerous Kodak Image Digitization and Processing Professionals On-Site at Kodak's Imaging
	Science Resources Lab in Rochester, New YorkTopic: Digitization and Enhancement of JFK Autopsy
	Photographic Images by KodakSummary of the Meeting Kodak's digitization and enhancement of the
	photographic images from President Kennedy's autopsy was an evolution which commenced on Sunday,
	November 2, 1997 and was completed on Friday, November 7, 1997. Major milestones in the evolution were:-
	Nov. 2, 1997: transportation of all original autopsy photographs (color positive transparencies and B & W
	negatives) from NARA in Washington, D.C. to Kodak in Rochester, New York;-Nov. 3-4: digitization of all
	original autopsy images (51 total);-Nov 5: return of original materials to NARA in Washington, D.C.;-Nov. 4-7: enhancement of the raw digitized form of 19 selected autopsy images;-Nov. 7: transportation of all stored
	digital images (both raw and processed), and all thermal (paper) images of enhancements, to NARA in
	Washington, D.C.Details follow:All 51 original photographic images of President Kennedy's autopsy (26 each
	color positive transparencies and 25 each B & W negatives, all in 4" X 5" format) were raw-scanned digitally, in
	the form of 12-bit, 150 MB, 4000 X 6000 pixel IMPS images (read on a UNIX computer), and stored on JAZ
	cartridges. [Thus, a permanent, digital record was created for posterity of each autopsy image, without
	exception.] Even though each JAZ cartridge could hold as much as 1 GB of data, because there is so much data
	in each raw scan, only about 5 raw images could be stored on each JAZ cartridge; as a result, 10 JAZ cartridges
	were required to store the 51 raw scans, and 10 additional JAZ cartridges were used to create "insurance"
	copies of the first 10 JAZ cartridges.ARRB (Doug Horne) selected 19 of the 51 original images (what were
	subjectively judged to be the best quality images among the 51 bracketed shots) for enhancement. For all 19
	enhanced images, the following minimal steps were taken, and the following records were created digitally on
	JAZ cartridges, by a software program written by Kodak which applied the following transforms, and
	reductions, to the original, raw digital image:-image XX.01: color-corrected, noise filtered, 8-bit, 75 MB, 4000 X
	6000 pixel DOS image. At this stage the amount of data in the image is still too dense to allow it to print out a
	thermal image on paper;-image XX.02: 8-bit, approx. 18 MB, approx 2000 X 3000 pixel DOS image. For each
	enhanced image, a thermal, paper printed version of the full frame of image "XX.02" was created in the
Rody:	thermal printer on thermal color paper (using a three-color ribbon);-image XX.03: 8-bit, approx. 5-6 MB, approx. 1000 X 1,500 pixel DOS image;-image XX.04: 8-bit, approx. 2-3 MB, approx. 512 X 768 pixel DOS
Body: recstat:	Record
DeliveryPriority:	N
DeliveryReport:	B
ReturnReceipt:	
Categories:	