



DEPARTMENT OF THE NAVY
NAVAL AIR SYSTEMS COMMAND
ADM WILLIAM A. MOFFETT BUILDING
47123 BUSE ROAD, BLDG 2272
PATUXENT RIVER, MARYLAND 20670-1547

5830 IN REPLY REFER TO
Ser AIR 00/204
APR 26 2013

From: Commander, Naval Air Systems Command
To: File

Subj: ACTION OF THE FINAL REVIEWING AUTHORITY CONCERNING A
CLASS ALPHA AVIATION MISHAP INVOLVING AN MQ-8B FIRE
SCOUT, BUNO 167988, OPERATING FROM USS ROBERT G.
BRADLEY (FFG 49), WHICH OCCURRED ON 13 DECEMBER 2012

Ref: (a) (b) (6) USN, ltr of 21 Feb 13
(b) JAG Manual, Chapter II

1. Reference (a) has been reviewed in accordance with reference (b). Further endorsement is unnecessary; therefore, the investigation is final and will be retained at this command for a period of two years from the date of this action. Any further correspondence regarding this matter should be forwarded accordingly. The subject line has been modified to ensure proper identification of the investigation for administrative purposes.

2. Summary. At 1140Z on 13 December 2012, an MQ-8B FIRE SCOUT (BUNO 167988/N12) launched from USS ROBERT G. BRADLEY (FFG-49) to conduct an Intelligence, Surveillance and Reconnaissance mission in support of Special Operations forces. After 27 minutes of flight, the mishap aircraft received an icing alert and was directed to return to the ship by the Air Vehicle Operator. While recovering aboard ship, the aircraft lost control, crashed into the sea, and was destroyed. Several pieces of the airframe were recovered, including tail rotor components, the air intake filter, and various pieces of the fuselage. Post-flight engineering analysis revealed out of balance and flapping conditions in the tail assembly, caused by rapid descent and ice loading.

3. The cause of the mishap was inadvertent flight into icing conditions, and subsequent loss of aircraft control.

4. In response to recommendation 1, a copy of this report was forwarded to PMA-266 to determine the feasibility of technological improvements to the MQ-8B airframe and primary data link.

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5. In response to recommendation 2, (b) (3) (A), (b) (4), (b) (5), (b) (6)

6. Per section 209h of reference (b), a complete copy of this investigation is forwarded to Chief of Naval Operations (N09G).

7. Subject to the foregoing, the findings of fact, opinions, and recommendations of the Investigating Officer, as commented on by subsequent endorsements, are approved.

(b) (6)

D. A. DUNAWAY

Copy to:
CNO (N09G) (w/encls)
COMNAWCAD
COMNAVTESTWINGLANT
HSC-22 (w/encls)

(b) (6)



DEPARTMENT OF THE NAVY
NAVAL AIR WARFARE CENTER AIRCRAFT DIVISION
22347 CEDAR POINT ROAD, UNIT 6
PATUXENT RIVER, MARYLAND 20670-1161

5830
Ser 000000A/087
16 Apr 13

FIRST ENDORSEMENT on COMNAVTESTWINGLANT ltr 5830 Ser 510000A/112
of 2 Apr 13

From: Commander, Naval Air Warfare Center Aircraft Division,
22347 Cedar Point Road, Unit 6, Patuxent River, MD
20670-1161

To: Commander, Naval Air Systems Command, 47123 Buse Road,
Unit IPT, Patuxent River, MD 20670-1547

Subj: COMMAND INVESTIGATION OF AVIATION MISHAP INVOLVING MQ-8B
FIRE SCOUT BUNO 167988 OPERATING FROM USS ROBERT G
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1. Concur with the findings, opinions, and recommendations of the investigating officer, as modified by Commander, Naval Test Wing Atlantic.
2. The Staff Judge Advocate, Naval Air Systems Command is directed to maintain the original documentary evidence gathered during the course of the investigation. The telephone number of the Staff Judge Advocate is 301-757-0586.

(b) (6)

M. W. DARRAH
Rear Admiral, United States Navy

Copy to:
NAVAIRSYSCOM (AIR-00J)
COMNAVTESTWINGLANT



DEPARTMENT OF THE NAVY
NAVAL TEST WING ATLANTIC
22541 MILLSTONE ROAD
PATUXENT RIVER, MARYLAND 20670-1606

5830
Ser 510000A/112
2 Apr 13

From: Commander, Naval Test Wing Atlantic
To: Commander, Naval Air Systems Command
Via: Commander, Naval Air Warfare Center Aircraft Division

Subj: COMMAND INVESTIGATION OF AVIATION MISHAP INVOLVING
MQ-8B FIRE SCOUT BUNO 167988 OPERATING FROM USS ROBERT G
BRADLEY (FFG 49) THAT OCCURRED ON 13 DECEMBER 2012

Encl: (1) (b) (6) USN ltr 5830 of 21 Feb 13

1. Enclosure (1) is readdressed and forwarded.
2. Concur with the investigating officer's findings of fact and opinions.

3. Recommendation 1, (b) (5)

(b) (5)

(b) (5)

A copy of this report will be forwarded to PMA-266 for action deemed appropriate.

4. Recommendation 2 is changed to read: (b) (5)

(b) (5)

5. The recovered parts of the mishap Fire Scout are preserved at FRC EAST Cherry Point, NC; the responsible officials are

(b) (6) who may be contacted at (b) (6) or (b) (6)

(b) (6) who may be contacted at (b) (6)

(b) (6)

R. L. CORDELL

5830
21 Feb 13

From: (b) (6) USN
To: Commander, Naval Test Wing Atlantic

Subj: COMMAND INVESTIGATION OF AVIATION MISHAP INVOLVING MQ-8B
FIRE SCOUT BUNO 167988 OPERATING FROM USS ROBERT G
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Ref: (a) Manual for the Judge Advocate General

Encl: (1) COMNAVTESTWINGLANT ltr 5830 Ser 510000A/225 of 14 Dec
12
(2) COMNAVTESTWINGLANT ltr 5830 Ser 510000A/017 of 18 Jan
13
(3) COMNAVTESTWINGLANT ltr 5830 Ser 510000A/040 of 12 Feb
13
(4) Mr. (b) (6), (b) (7)(C) e-mail of 13 Dec 12
(5) (b) (6), (b) (7)(C) results of interview of 2 Jan
2013
(6) Northrop Grumman Corporation Engineering Data and
Summary
(7) (b) (6), (b) (7)(C) maintenance summary of 11 Feb 2013
(8) (b) (6), (b) (7)(C) results of interview of 2 Jan 2013
(9) (b) (6), (b) (7)(C) results of interview of 2 Jan 2013
(10) (b) (6), (b) (7)(C) results of interview of 2 Jan 2013
(11) Mr. (b) (6), (b) (7)(C) results of interview of 2 Jan 2013
(12) Air Vehicle Operator qualification
(13) Mission Payload Operator qualification
(14) Mr. (b) (6), (b) (7)(C) results of interview of 3 Jan 2013
(15) Mr. (b) (6), (b) (7)(C) results of interview of 2 Jan 2013
(16) (b) (6), (b) (7)(C) results of interview of 3 Jan 2013
(17) Maritime weather forecast for 13 Dec 2012
(18) Operational area weather forecast for 13 Dec 2012
(19) NAVAIR A1-MQ8BA-NFM-000 MQ-8B NATOPS, 15 Feb 2012,
Change 3, 4, 7(1)
(20) (b) (6), (b) (7)(C) results of interview of 2 Jan
2013
(21) Flight Schedule for 13 Dec 2012
(22) (b) (6), (b) (7)(C) results of interview of 2 Jan 2013
(23) (b) (6), (b) (7)(C) results of interview of 2 Jan 2013
(24) (b) (6), (b) (7)(C) results of interview of 2 Jan 2013
(25) NAVAIR A1-MQ8BA-NFM-000 MQ-8B NATOPS, 15 Feb 2012,
Change 3, page 8-45, Figure 8-1, Fire Scout wind
envelopes

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- (26) (b) (6), (b) (7)(C) results of interview of 2 Jan 2013
- (27) (b) (6), (b) (7)(C) results of interview of 2 Jan 2013
- (28) (b) (6), (b) (7)(C) results of interview of 3 Jan 2013
- (29) Flight deck photo where Tail Rotor impacted flight deck
- (30) Recovered Tail Rotor paddle that impacted flight deck
- (31) Flight deck photo of Tail Rotor impact on flight deck
- (32) (b) (6), (b) (7)(C) results of interview of 2 Jan 2013
- (33) USS ROBERT G BRADLEY Deck log of 13 Dec 2012
- (34) (b) (6), (b) (7)(C) results of interview of 2 Jan 2013
- (35) Photo of recovered N12 Tail Rotor fork
- (36) Photo of recovered N12 Tail Rotor Driveshaft
- (37) Photo of recovered N12 air intake filter
- (38) Photo of recovered N12 air frame part
- (39) Photo of recovered N12 air frame part #2
- (40) Photo of recovered N12 Tail Rotor Driveshaft #2
- (41) Fleet Support Team (FST) e-mail of 20 Feb 2013
- (42) Issue sheet for replacement cost of N12

PRELIMINARY STATEMENT

1. Pursuant to enclosure (1), and in accordance with reference (a), this report is submitted upon completion of a command investigation to inquire into the circumstances surrounding the Class A Mishap involving Fire Scout side number N12 BuNo 167988 operating from USS ROBERT G BRADLEY (FFG 49). On 13 December 2012, N12 flew into icing conditions while operating above the Mediterranean Sea. Upon Fire Scout system notification of icing, the Air Vehicle Operator (AVO) commanded N12 to return to the ship. While over the flight deck attempting to land, N12 lost its Tail Rotor and began to spin out of control until impacting the ocean. The focus areas of this investigation were the operations and maintenance and the engineering disposition evaluated from recovered Fire Scout hardware and system generated electronic log files. There were no difficulties encountered during the conduct of this inquiry with the personnel of the ship and detachment; however, due to the location of the ship, delayed shipping of recovered air vehicle parts, and declassification of the electronic log data, there was a delay in completing this report in the time directed in

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the appointing order. Multiple extensions were requested and granted by the Convening Authority enclosure.

2. The Fire Scout is a Vertical Takeoff Unmanned Aerial Vehicle (VTUAV) developed from a commercial Schweizer 333 helicopter. The Fire Scout VTUAV is an autonomous system operated by a two person crew that operates the Air Vehicle from a Ground Control Station (GCS) that is temporarily installed as part of a Ship Change Document (SCD). The GCS is essentially the Fire Scout cockpit allowing the crew to control flight and mission systems using a radio Data Link from the ship. The GCS is comprised of two consoles. One console is for the AVO who controls flight and the second console is dedicated to the Mission Payload Operator (MPO) who controls the various mission payloads. The other equipment installed on the ship to support Fire Scout operations are the UAV Command Automatic Recovery System (UCARS), a Tactical Common Data Link (TCDL) rack, various computers for data processing, Emergency shutoff/Wave off switch, and four V/UHF ARC-210 radios.
3. The TC DL is known as the Fire Scout's Primary Data Link (PDL) which can be an omni-directional or directional radio. The PDL can relay command and control messages and VTUAV mission payload data. The PDL is the only one of the two links on the Fire Scout that is capable of transmitting Forward Looking Infrared (FLIR) full motion video imagery to the AVO and MPO operators on the ship. A Secondary Data Link (SDL) is a UHF/VHF omni-directional link that provides command and control messages between the VTUAV and the GCS.
4. The mission requires two Fire Scouts to be airborne simultaneously. This can be done with a single GCS. However, the current configuration of the Fire Scout system is limited to one PDL. The PDL transfer between VTUAVs is not instantaneous and results in a loss of connectivity of approximately two to three minutes. The SDL does not have the ability to transmit or receive FLIR full motion video.
5. The Special Operations Command (SOCOM) Joint Urgent Operational Need Statement (JUONS) dated August 2011 and the 2012 President's Budget RMD-700 sourced the Fire Scout Program Office (PMA 266) to develop a Rapid Deployment Capability (RDC) for deployment aboard Guided Missile Frigates (FFG). The USS ROBERT G BRADLEY is the fifth FFG to deploy the Fire Scout

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system and the third to support Special Operations Forces (SOF). The USS ROBERT G BRADLEY and its embarked Fire Scout Detachment of 24 Sailors assigned to Helicopter Sea Combat Control Squadron TWO TWO (HSC-22) and four contractor Fleet Support Representatives (FSR) operate four MQ-8B Fire Scouts. The Northrop Grumman Corporation (NGC) FSRs provide technical support on Fire Scout and ship based equipment that is not fully supported by either Surface or Naval Aviation maintenance, logistics, and training infrastructure. The NGC FSRs are sourced by PMA-266's Contract Logistics Support Contract (N00019-13-C-0007).

6. Time data collected from Data Control Processor (DCP) logs in enclosure (6) is reported in Zulu time. All times noted in the body of the report are local mishap site times.
7. All evidence included herein is certified to be either the original or a true copy, which is an accurate representation of the original documents.
8. The subject line of the appointing order was modified to more accurately identify the mishap aircraft.

FINDINGS OF FACT

1. On 13 December 2012, N12 encountered icing conditions. [Encl 4, 5, 6]
2. In November 2012, the detachment maintenance team determined that N12's Tail Rotor gearbox was leaking oil. On 6 December 2012, this discrepancy was resolved by Aviation Detachment maintenance personnel in accordance with authorized maintenance procedures. [Encl 7, 8, 9, 10]
3. On 13 December 2012, a Daily Turn Around inspection for N12 was completed with no discrepancies. [Encl 9]
4. N12 and N13 were released Safe for Flight by (b) (6), (b) (7)(C) at 0430, 13 December 2012. [Encl 10]
5. The Ground Control Segment and all associated equipment described in the preliminary statement were in a full mission capable status prior to N12's mishap. [Encl 11]

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6. The Air Vehicle Operators and Mission Payload operators were qualified to operate the Fire Scout. [Encl 12, 13]
7. Mr. (b) (6), (b) (7)(C) stated that N12 start up went uneventfully. [Encl 14]
8. Mr. (b) (6), (b) (7)(C) Northrop Grumman Corporation AVO Instructor, signed for N12 and N13 on the morning of 13 December 2012. [Encl 15]
9. The crew for the 0600 to 1030 flight event (Event 1) on the December 13 flight schedule received weather brief information from (b) (6), (b) (7)(C) [Encl 15, 16]
10. The maritime weather brief compiled by (b) (6), (b) (7)(C) indicated few clouds at 1,000-2,000 feet, scattered clouds at 3,000-4,000 feet, a mostly broken layer at 5,000-7,000 feet, an overcast layer at 8,000-10,000 feet. [Encl 16, 17]
11. Operation area and Maritime weather forecasts indicating visible moisture and freezing layers at 5,000 to 7,000 feet were briefed at the nightly Operations Brief the night before the mishap. Fire Scouts are not authorized to fly in an environment with outside air temperature less than five degrees Celsius and visible moisture present. [Encl 16, 17, 18, 20]
12. USS ROBERT G BRADLEY was farther from the operational area than normal, prompting the air crew to climb to the operational altitude enroute vice spiraling climb out within ship's airspace. [Encl 15, 20]
13. N12 launched to support flight schedule Event #1 at 0630, 13 December 2012. [Encl 15, 21, 20]
14. From 0630 until 0700, N12 flew to its operational altitude enroute to the operational area using the FLIR payload to look for visible moisture. [Encl 15, 22]
15. At 0705, N12 arrived and began performing its mission in the operational area without receiving any corresponding system icing warnings and any visible moisture. [Encl 15, 21, 22]

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16. Event 2 scheduled for the 0915-1330 flight event flown by N13 launched and arrived over the operational area uneventfully. [Encl 15, 21]

17. N12 and N13 were flown simultaneously using Dual Air Vehicle (DAV) operations. [Encl 15, 22]

18. N12 was relieved on station by N13. The PDL was transferred from N12 to N13 to perform the mission. [Encl 15, 22]

19. N12 returned using the same flight profile used during ingress to the operations area and landed uneventfully on USS ROBERT G BRADLEY at 1020. [Encl 22, 23]

20. N12 was refueled uneventfully and remained turning on deck to be ready to launch for Event 3 scheduled for a 1230 to 1630 flight. [Encl 15, 22]

21. The flight crew of N12 consisted of Mr. (b) (6), (b) (7)(C) as the AVO Instructor who compiled over 2600 flight hours in various rotary wing aircraft prior to his retirement from the Marine Corps in 2008; the AVO, (b) (6), (b) (7)(C) was active duty and accumulated over 1900 flight hours in various H-60 variants during his 12 years of commissioned service. The MPO, (b) (6), (b) (7)(C) was a mobilized reservist who had 5 years of H-46 experience and 8 years as an MH-60S crew chief. The mission coordinator, (b) (6), (b) (7)(C) was also a mobilized reservist who had over 2000 flight hours as a P-3 Radar/FLIR sensor operator. [Encl 4, 15, 20, 21, 22]

22. The mishap flight; event #3, was an authorized flight to perform Intelligence, Surveillance, Reconnaissance (ISR) support as indicated on the flight schedule drafted by the HSC-22 aviation detachment and approved by the USS ROBERT G BRADLEY's Commanding Officer, (b) (6), (b) (7)(C) [Encl 21]

23. Crew 2 AVO, (b) (6), (b) (7)(C) received a weather brief from (b) (6), (b) (7)(C) [Encl 16, 20]

24. The weather brief given to (b) (6), (b) (7)(C) was similar to the brief given at 0500 with increasing rain shower activity near the ship. [Encl 16]

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25. Mr. (b) (6), (b) (7)(C) commanded the launch of N12. [Encl 15]
26. Event 3 launched and vectored clear of clouds visible from the ship's bridge. [Encl 24]
27. (b) (6), (b) (7)(C) provided frequent verbal updates on weather and received Pilot Weather Reports by visiting the Flight Crew in the Fire Scout Ground Control Station space periodically throughout the day on 13 December 2012. [Encl 16]
28. (b) (6), (b) (7)(C) the Mishap AVO, took the controls of N12 as it climbed through 5,000 feet on its way to 8,000 feet at approximately 1245. [Encl 15, 20]
29. (b) (6), (b) (7)(C) commanded N12's continued climb to 9,000 feet. [Encl 20]
30. As N12 continued its climb, (b) (6), (b) (7)(C) reviewed N13's flight data on the GCS display. [Encl 20]
31. At time 13:05:58, N12's onboard icing detector provided the first indication of icing on N12. [Encl 6]
32. At that time, (b) (6), (b) (7)(C) reviewed N12's flight data and saw icing warnings. [Encl 20, 22]
33. Icing warnings occurred approximately 15 minutes after (b) (6), (b) (7)(C) took the controls of N12. [Encl 15]
34. At time 13:07:31, upon indication of icing, (b) (6), (b) (7)(C) commanded a descent and return to the ship. [Encl 6, 15, 20, 22]
35. At time 13:07:45, N12 lost directional control. [Encl 6]
36. Secondary indications of icing occurred during N12's return flight to the ship. [Encl 6, 15, 20, 22]
37. At time 13:07:44, N12's Engine torque sensor failed. [Encl 6]
38. At time 13:09:10, N12 regained vertical control. [Encl 6]

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39. N12 descended approximately 4,000 feet, reaching a descent rate of up to 64 feet per second, or 3,840 feet per minute. [Encl 6]
40. NGC's engineering report indicates that N12 rotated to the right around the yaw axis for 102 seconds. [Encl 6]
41. At time 13:09:27, N12 regained directional control. [Encl 6]
42. At time 13:09:53, N12 indicated a Tail Rotor Transmission chip light. [Encl 6, 15, 20]
43. At time 13:10:30, N12 indicated its vibration limit was exceeded. [Encl 6, 20]
44. At time 13:11:01, N12 indicated a second Tail Rotor Transmission chip light that did not clear. [Encl 6]
45. N12's rapid descent and departure from controlled flight were not mentioned by the flight crew during their interviews. [Encl 5, 15, 20, 22]
46. The Helicopter Control Officer (HCO) received winds within the required flight envelope. [Encl 22, 25, 26]
47. At time 13:39:28, N12 proceeded to the perch position 50 feet aft and 50 feet high, and received the command to land from the AVO. [Encl 9, 14, 20]
48. At time 13:40:09, N12 reached high hover position 30 feet over the flight deck. [Encl 6]
49. Immediately upon descent from high hover to 15 feet hover, the HCO, located in the ship's control tower, reported on the sound-powered phone circuit that he observed something falling off the aircraft. The Plane Captain responded that it looked like a piece of ice. [Encl 6, 25, 27, 28, 29]
50. The Plane Captain, HCO, and ASW/ASUW Tactical Air Controller (ASTAC) described the falling object as being round in shape and two feet square. [Encl 26, 27, 28]

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51. The Plane Captain observed the Tail Rotor paddle strike the horizontal stabilizer of the Fire Scout. [Encl 27]
52. The Plane Captain saw the Tail Rotor paddle separate from N12 and impact the flight deck. [Encl 27, 28, 29]
53. The Tail Rotor paddle remained on the flight deck and was part of the recovered wreckage. [Encl 30]
54. The Tail Rotor paddle struck the flight deck, leaving a minor gash in the non-skid. [Encl 31]
55. At time 13:40:12, N12 began a right yaw motion. [Encl 6, 15, 20, 26, 27, 28]
56. At time 13:40:12, as N12's right yaw continued, the Recovery Data link (RDL) broke lock with the UCARS system, resulting in the loss of UCARS camera video of N12. Encl [6, 20]
57. At time 13:40:13, an Autonomous Wave-off was commanded from Fire Scout system. [Encl 6]
58. The ship's Helicopter Operations Surveillance System (HOSS) camera showed live video of the flight deck but the video recorder was not functional. [Encl 32]
59. N12 began erratic pitching and altitude oscillations with continuous spinning to the right in the yaw axis. Encl [6, 24, 26, 27]
60. The HCO commanded a Wave off using the HCO Wave off button. [Encl 26]
61. ROBERT G BRADLEY's Bridge watch commanded a turn and acceleration to increase distance between N12 and the ship. [Encl 24, 33, 34]
62. At time 13:41:08, N12's last data point was received. [Encl 6]
63. N12 impacted the water aft and starboard of the ship at GOS coordinates (b) (5)
[Encl 24, 27, 33]

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64. The time from loss of Tail Rotor authority to receipt of the last data point was 56 seconds. [Encl 6]
65. NGC analysis concluded that high torque, low main rotor speed (Nr), and the Tail Rotor at maximum pitch, while falling and under ice loading, created an out of balance and flapping condition in the Tail Rotor assembly. [Encl 6]
66. NGC analysis further suggested the Tail Rotor assembly flapping stressed the material beyond design limits, damaging the Tail Rotor paddle fork. [Encl 6, 35]
67. During N13's return flight to the ship, the flight crew used N13's FLIR to look for adverse weather. [Encl 15, 20]
68. During N13's return flight to the ship, the flight crew identified scattered clouds using N13's FLIR. [Encl 15]
69. USS ROBERT G BRADLEY recovered N13 uneventfully. [Encl 15, 20, 23, 26]
70. USS ROBERT G BRADLEY recovered the following wreckage from N12: Tail rotor fork, Tail rotor driveshaft, air intake filter, and various pieces of the fuselage. [Encl 26, 32, 36, 37, 38, 39, 40]
71. The FST engineering findings state that the Tail Rotor flight control rod fracture appears to be caused by overload. [Encl 41]
72. The attachment nut between the main gear box pinion driveshaft and Tail Rotor driveshaft was damaged significantly, presumably from overload as the driveshaft and gearbox left the aircraft. [Encl 41]
73. Input shaft components, including the seal nut, O-ring, spline retainer, and driven spline, were removed for inspection. The only component to show excessive wear was the driven spline. [Encl 41]
74. Tail Rotor gearbox bearings operated smoothly during post-crash inspection. [Encl 41]

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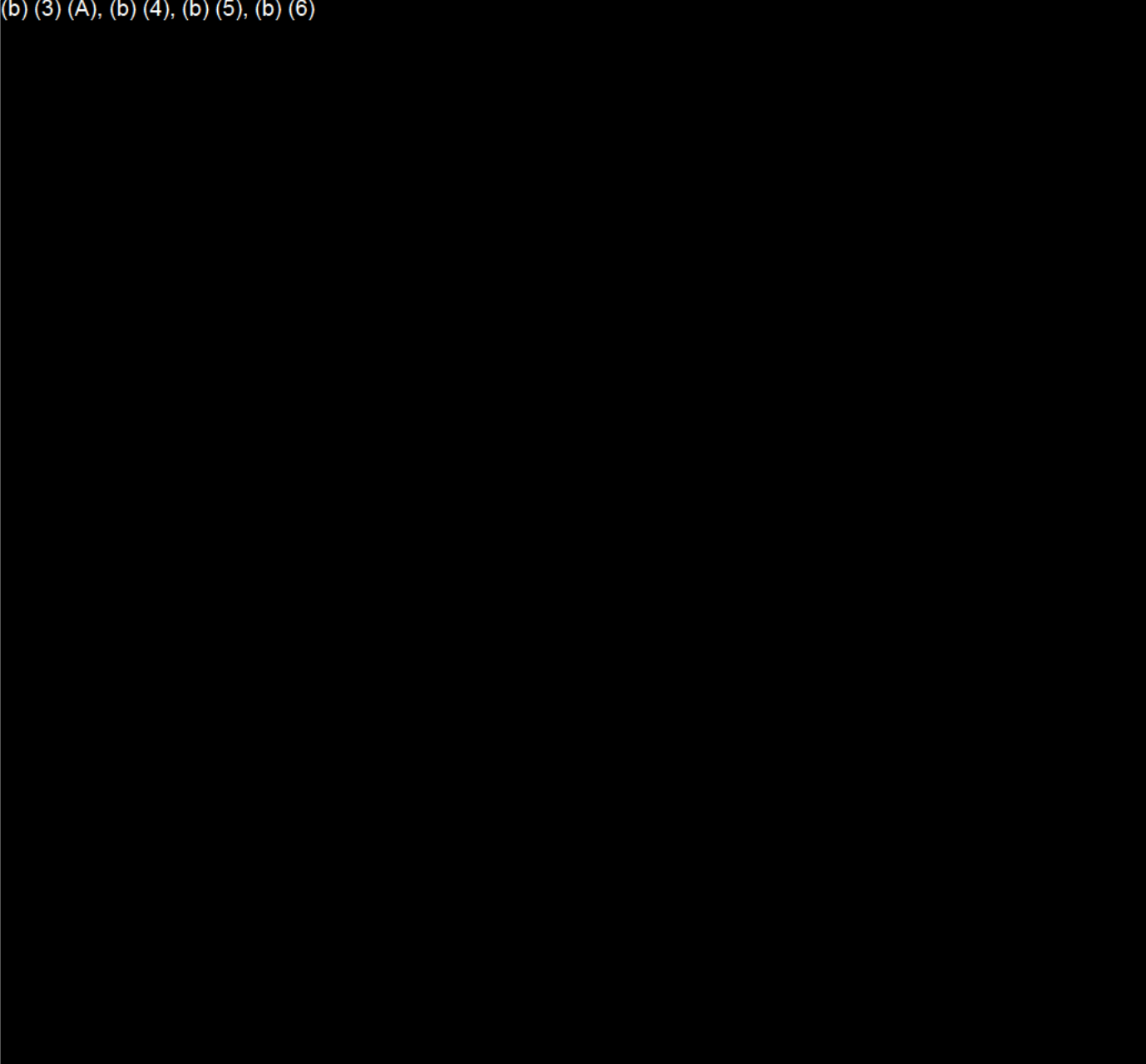
75. Tail Rotor gearbox bevel teeth showed no evidence of damage or excessive wear during post-crash inspection. [Encl 41]

76. Tail Rotor driveshaft output shaft rotated smoothly during post-crash inspection. [Encl 41]

77. The N12 mishap was a total loss of aircraft with a replacement value of \$14.1 million dollars. [Encl 42]

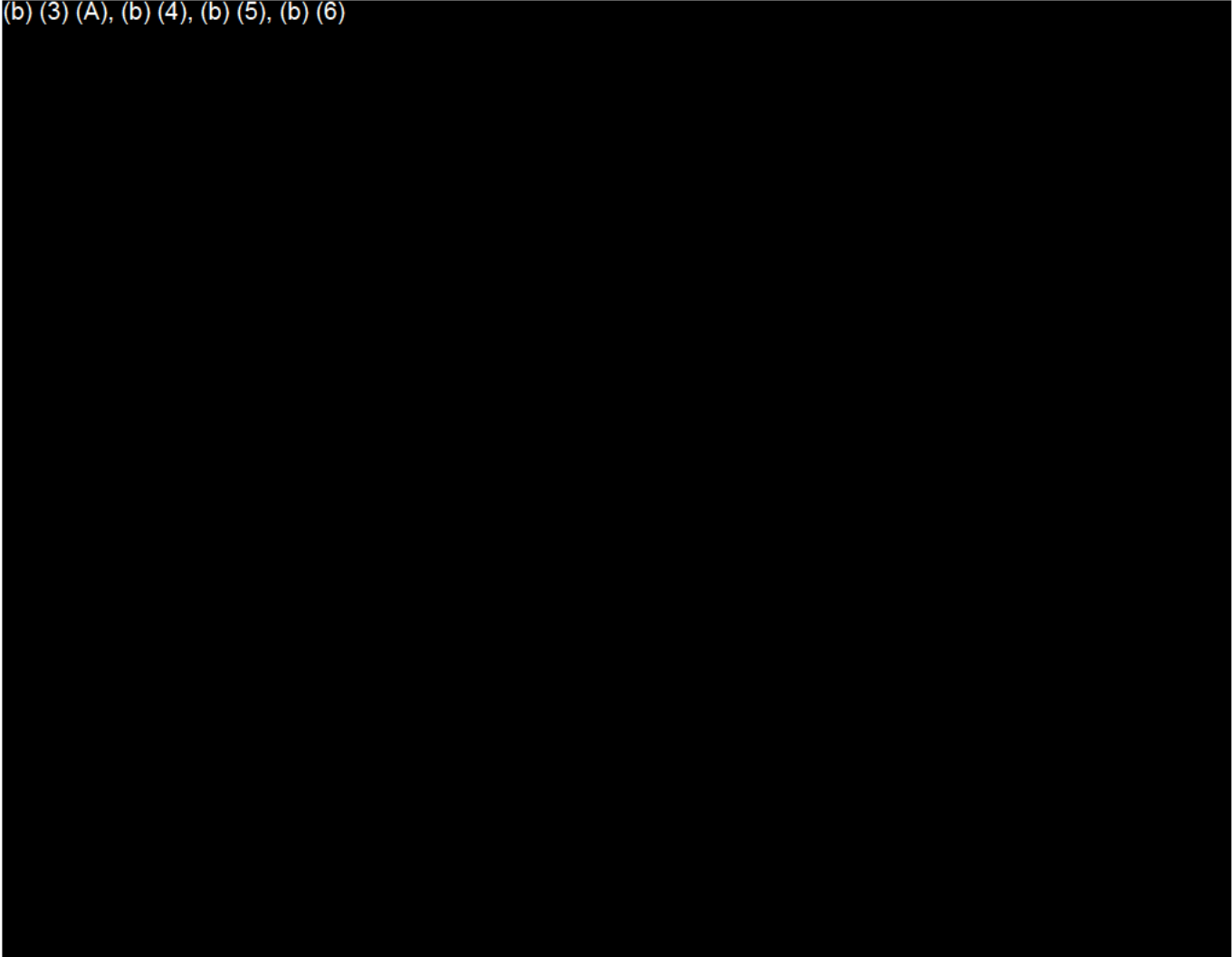
OPINIONS

(b) (3) (A), (b) (4), (b) (5), (b) (6)



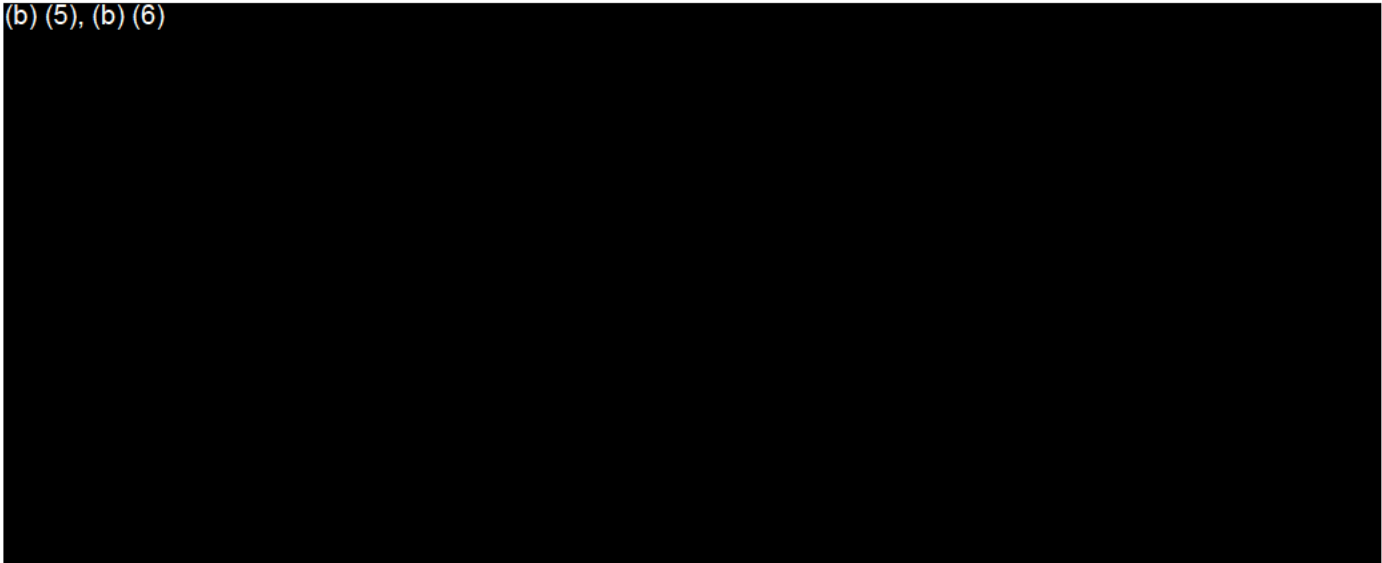
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(b) (3) (A), (b) (4), (b) (5), (b) (6)



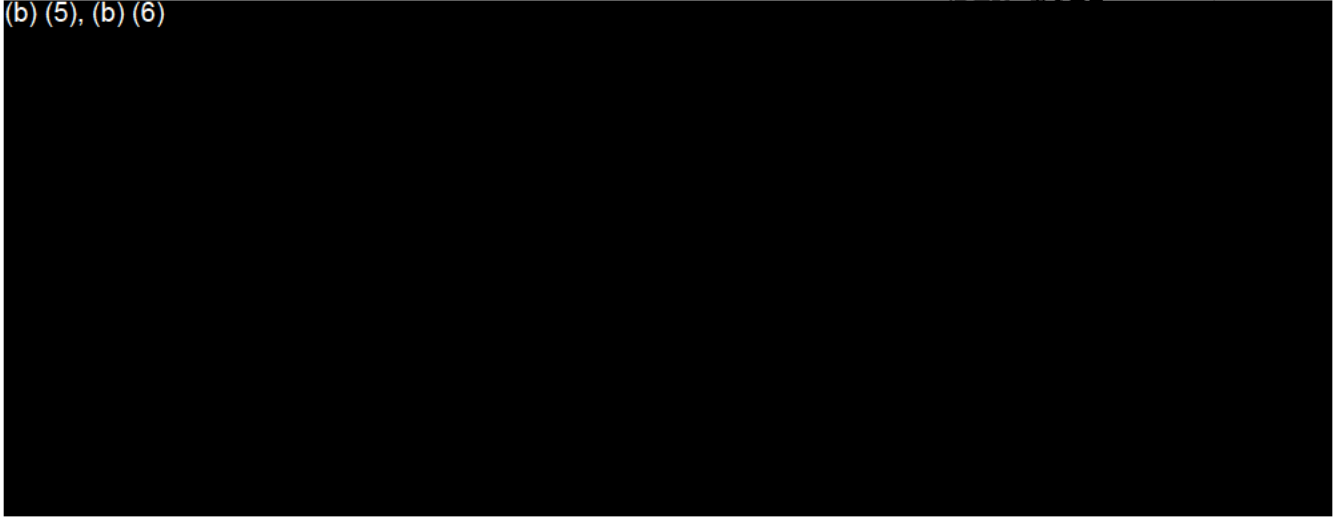
RECOMMENDATIONS

(b) (5), (b) (6)



Subj: COMMAND INVESTIGATION OF AVIATION MISHAP INVOLVING MQ-8B
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(b) (5), (b) (6)



(b) (6)



Lieutenant Commander, U.S. Navy



DEPARTMENT OF THE NAVY
NAVAL TEST WING ATLANTIC
22541 MILLSTONE ROAD
PATUXENT RIVER, MARYLAND 20670-1606

5830
Ser 510000A/225
14 Dec 2012

From: Commander, Naval Test Wing Atlantic
To: (b) (6) USN

Subj: COMMAND INVESTIGATION OF AVIATION MISHAP INVOLVING AN
MQ-8B FIRE SCOUT AIRCRAFT OPERATING FROM USS ROBERT G
BRADLEY (FFG-49) THAT OCCURRED ON 13 DECEMBER 2012

Ref: (a) JAG Manual, Chapter II

1. This appoints you, per reference (a), to inquire into the facts and circumstances relating to the MQ-8B Fire Scout aircraft mishap that occurred on 13 December 2012, while operating from USS ROBERT G BRADLEY (FFG-49). This command investigation is convened to investigate the circumstances surrounding a Class A mishap in compliance with 10 U.S.C. § 2255.
2. Investigate the cause of the mishap, resulting injuries and damages, and any fault, neglect, or responsibility therefore, and recommend appropriate administrative or disciplinary action. Report your findings of fact, opinions, and recommendations in letter form by 14 January 2013, unless an extension of time is granted. If you have not previously done so, read Chapter II of reference (a) in its entirety before beginning your investigation.
3. You may seek legal advice from (b) (5), (b) (6) NAVAIR Staff Judge Advocate, during the course of your investigation.
4. By copy of this appointing order, Commanding Officer, USS ROBERT G BRADLEY, is requested to furnish necessary clerical assistance.

(b) (6)

R. L. CORDELL

Copy to:
CO, USS ROBERT G BRADLEY

ENCLOSURE (1)



DEPARTMENT OF THE NAVY
NAVAL TEST WING ATLANTIC
22541 MILLSTONE ROAD
PATUXENT RIVER, MARYLAND 20670-1606

5830
Ser 510000A/017
18 Jan 13

From: Commander, Naval Test Wing Atlantic
To: (b) (6) USN

Subj: REQUEST FOR EXTENSION OF COMMAND INVESTIGATION

Encl: (1) COMNAVTESTWINGLANT ltr 5830 Ser 510000A/225 of
14 Dec 12

1. Request for command investigation extension to enclosure (1) granted.
2. Report your findings of fact, opinions, and recommendations in letter form by 14 February 2013.

(b) (6)

R. L. CORDELL

ENCLOSURE (2)



DEPARTMENT OF THE NAVY
NAVAL TEST WING ATLANTIC
22541 MILLSTONE ROAD
PATUXENT RIVER, MARYLAND 20670-1606

5830
Ser 510000A/040
12 Feb 13

From: Commander, Naval Test Wing Atlantic
To: (b) (6) USN

Subj: REQUEST FOR EXTENSION OF COMMAND INVESTIGATION

Ref: (a) COMNAVTESTWINGLANT ltr 5830 Ser 510000A/225
Of 14 Dec 12


1. Request for command investigation to ref (a) is granted to
21 February 2013.

(b) (6)

R. L. CORDELL

ENCLOSURE (3)

(b) (3) (A), (b) (4), (b) (5), (b) (6)



DEPARTMENT OF THE NAVY
VOLUNTARY STATEMENT

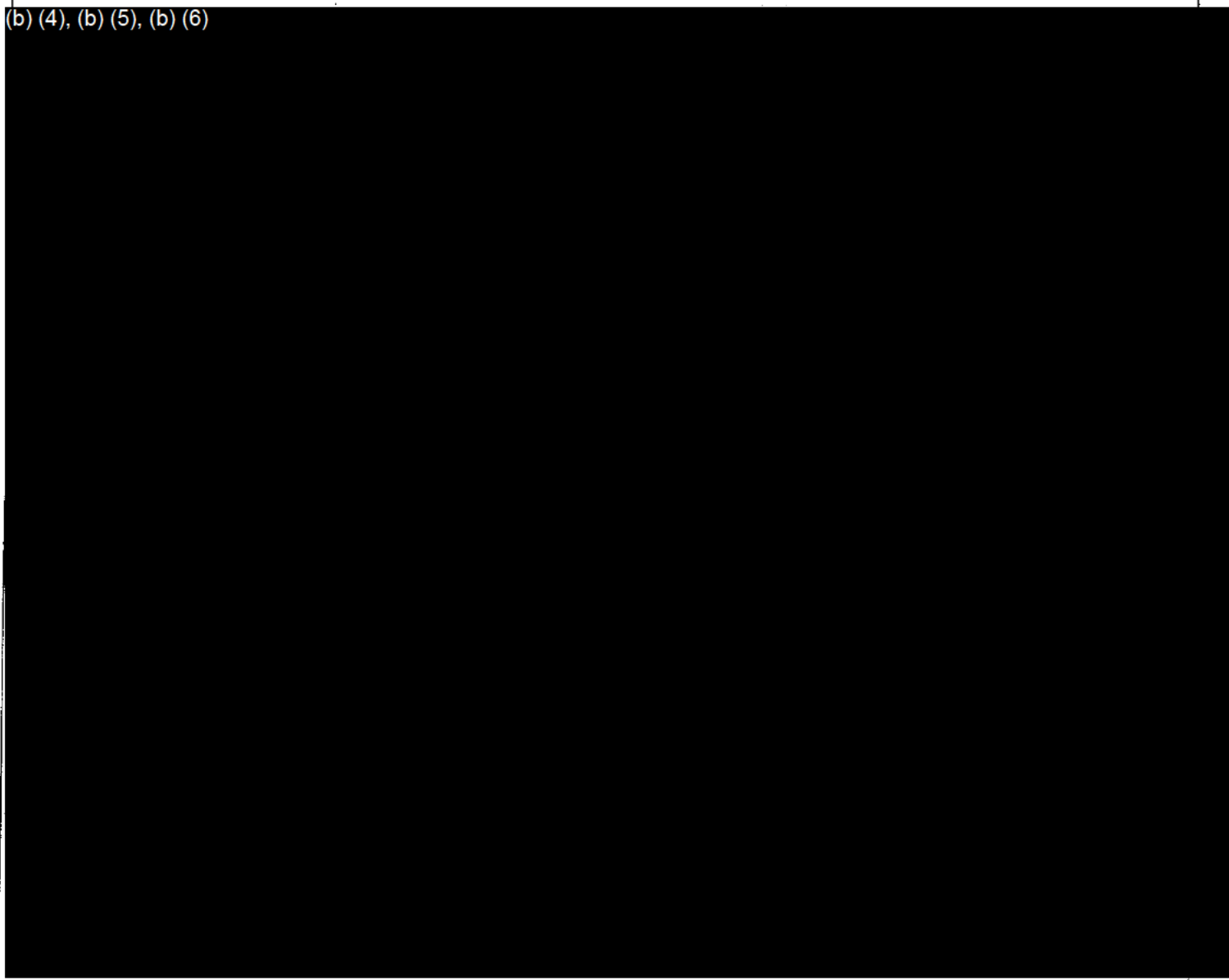
1. Place

USS BRADLEY (FFG 49)

2. Date

3 Jan 2013

(b) (4), (b) (5), (b) (6)



(b) (3) (A), (b) (4), (b) (5), (b) (6)

(b) (3) (A), (b) (4), (b) (5), (b) (6)

(b) (3) (A), (b) (4), (b) (5), (b) (6)

(b) (3) (A), (b) (4), (b) (5), (b) (6)

(b) (3) (A), (b) (4), (b) (5), (b) (6)

(b) (3) (A), (b) (4), (b) (5), (b) (6)

(b) (3) (A), (b) (4), (b) (5), (b) (6)

(b) (3) (A), (b) (4), (b) (5), (b) (6)

(b) (3) (A), (b) (4), (b) (5), (b) (6)

(b) (3) (A), (b) (4), (b) (5), (b) (6)

(b) (3) (A), (b) (4), (b) (5), (b) (6)

(b) (3) (A), (b) (4), (b) (5), (b) (6)


(b) (3) (A), (b) (4), (b) (5), (b) (6)

(b) (3) (A), (b) (4), (b) (5), (b) (6)

(b) (3) (A), (b) (4), (b) (5), (b) (6)

(b) (3) (A), (b) (4), (b) (5), (b) (6)

(b) (3) (A), (b) (4), (b) (5), (b) (6)



(b) (6)



DEPARTMENT OF THE NAVY
VOLUNTARY STATEMENT

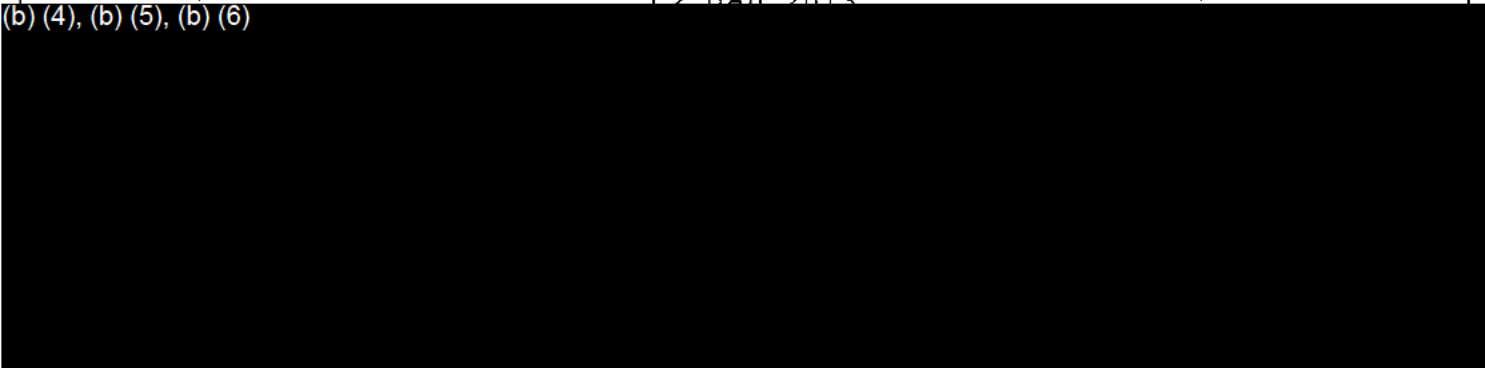
1. Place

USS BRADLEY (FFG 49)

2. Date

2 Jan 2013

(b) (4), (b) (5), (b) (6)



DEPARTMENT OF THE NAVY
VOLUNTARY STATEMENT

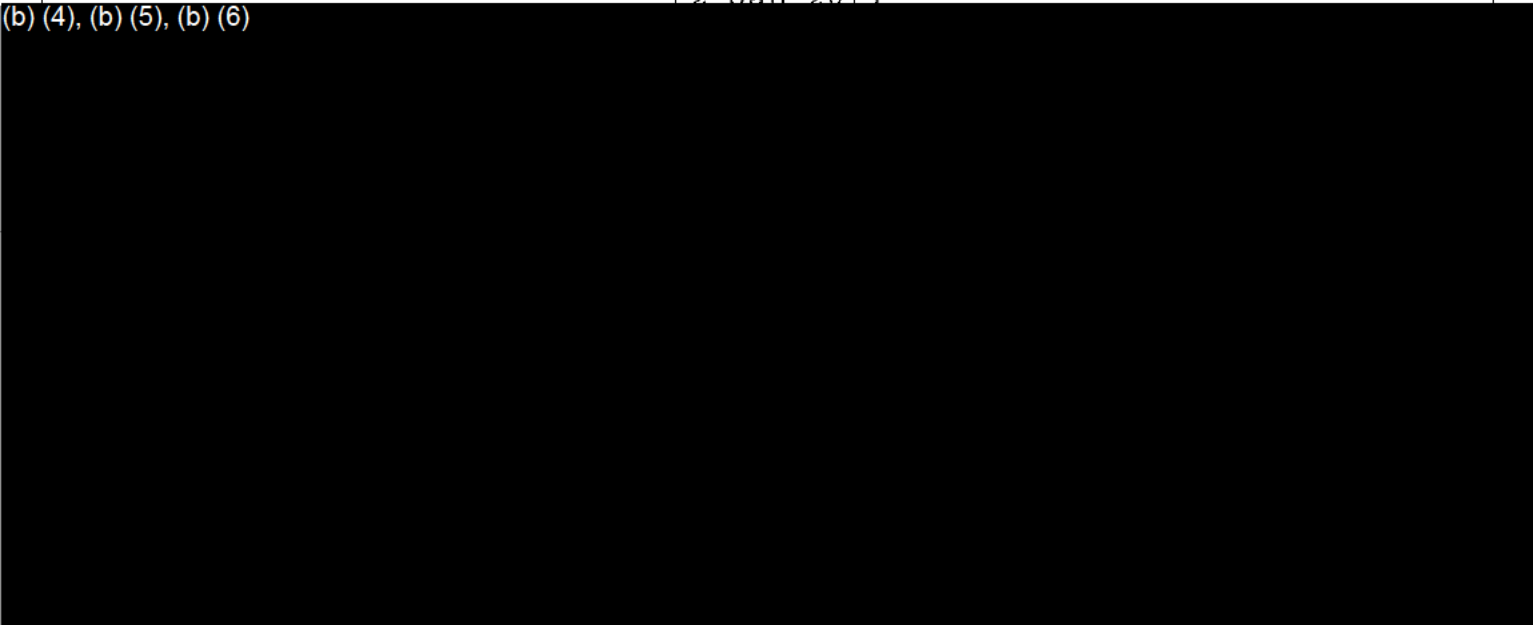
1. Place

USS BRADLEY (FFG 49)

2. Date

2 Jan 2013

(b) (4), (b) (5), (b) (6)



DEPARTMENT OF THE NAVY
VOLUNTARY STATEMENT

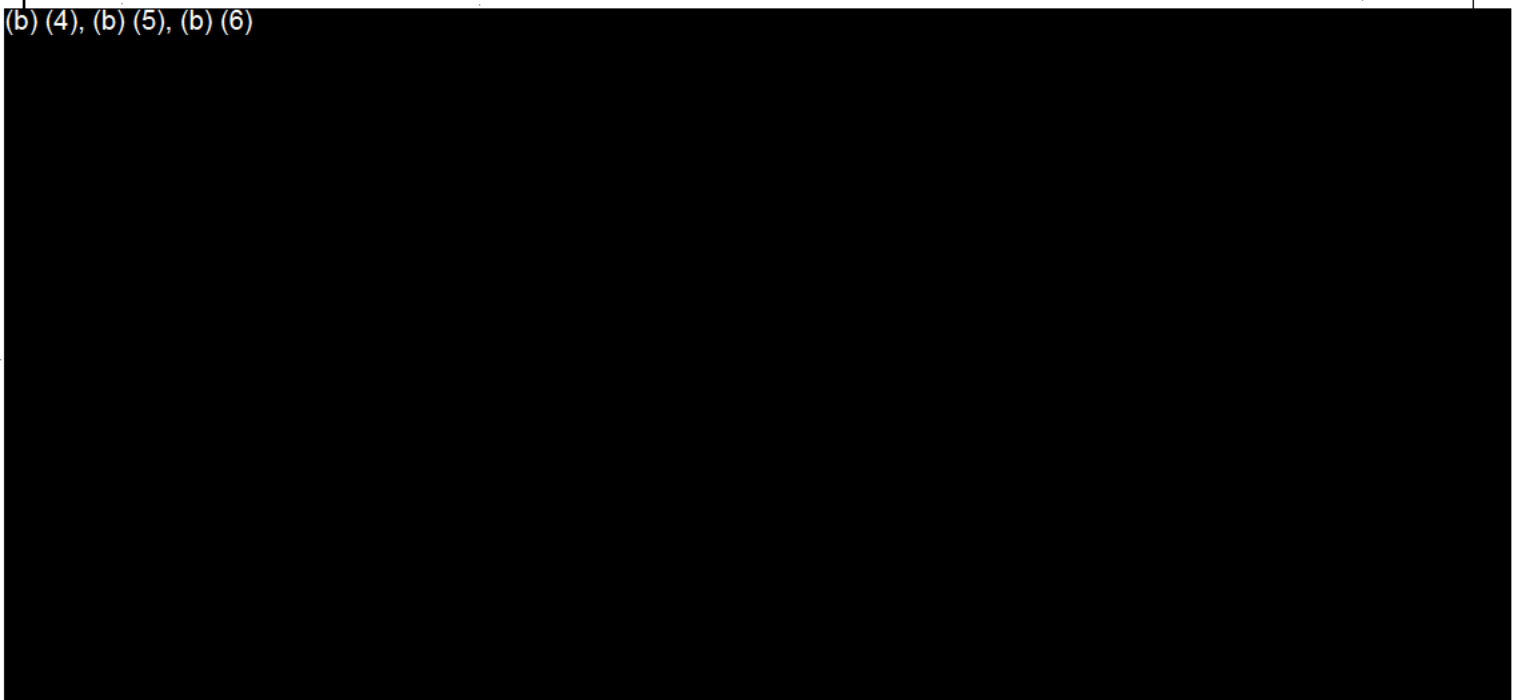
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USS BRADLEY (FFG 49)

2. Date

2 Jan 2013

(b) (4), (b) (5), (b) (6)



DEPARTMENT OF THE NAVY
VOLUNTARY STATEMENT

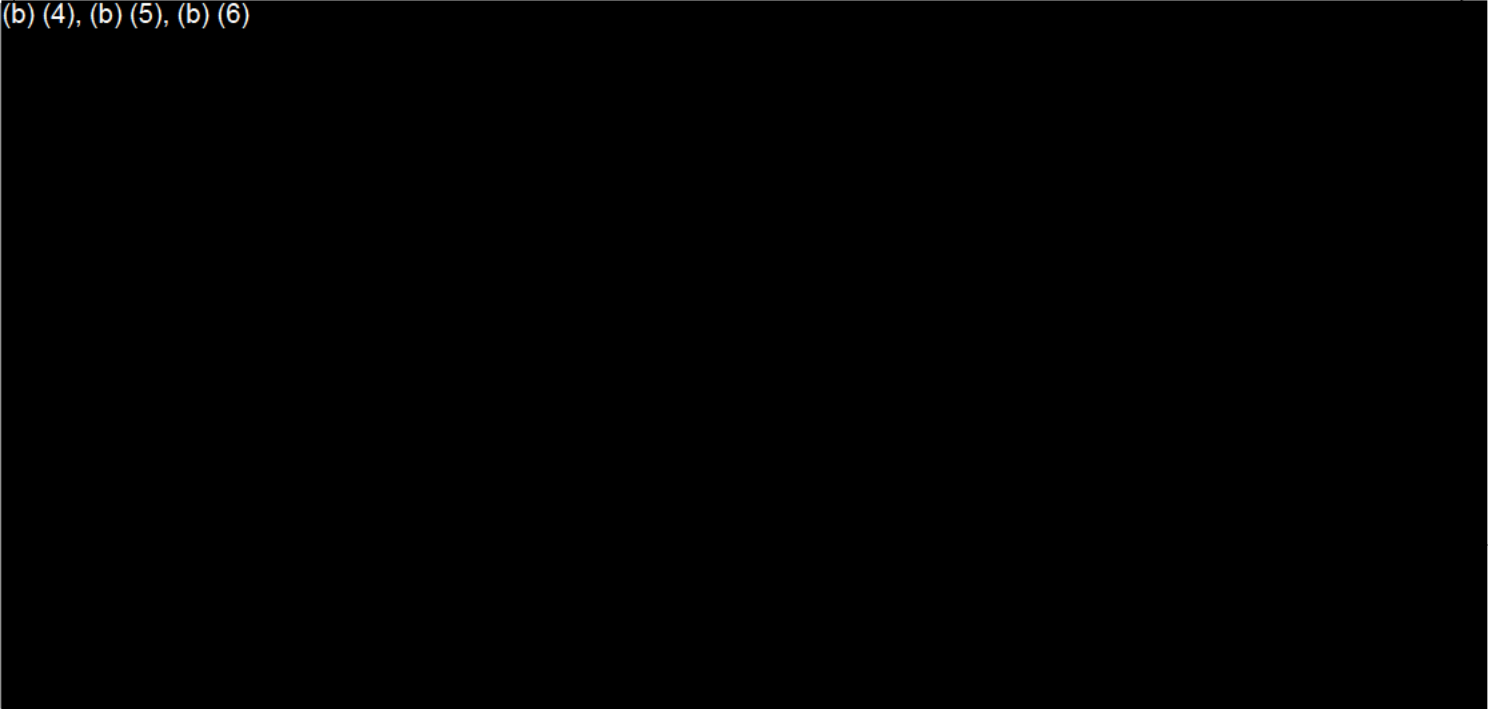
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USS BRADLEY (FFG 49)

2. Date

2 Jan 2013

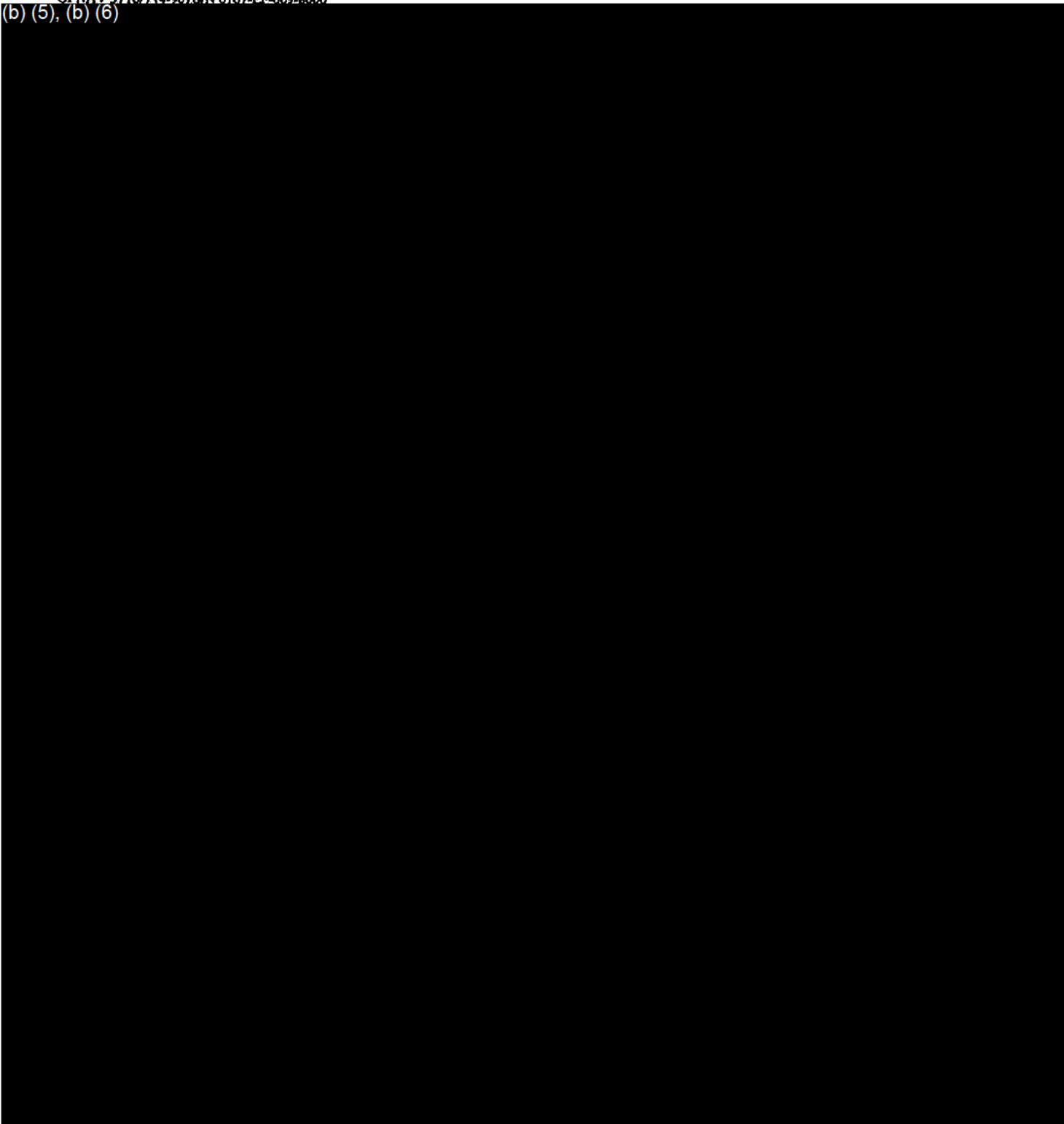
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NATOPS EVALUATION REPORT

OPNAV 3710/7 (4-90) S/N 0107-LE-009-8000

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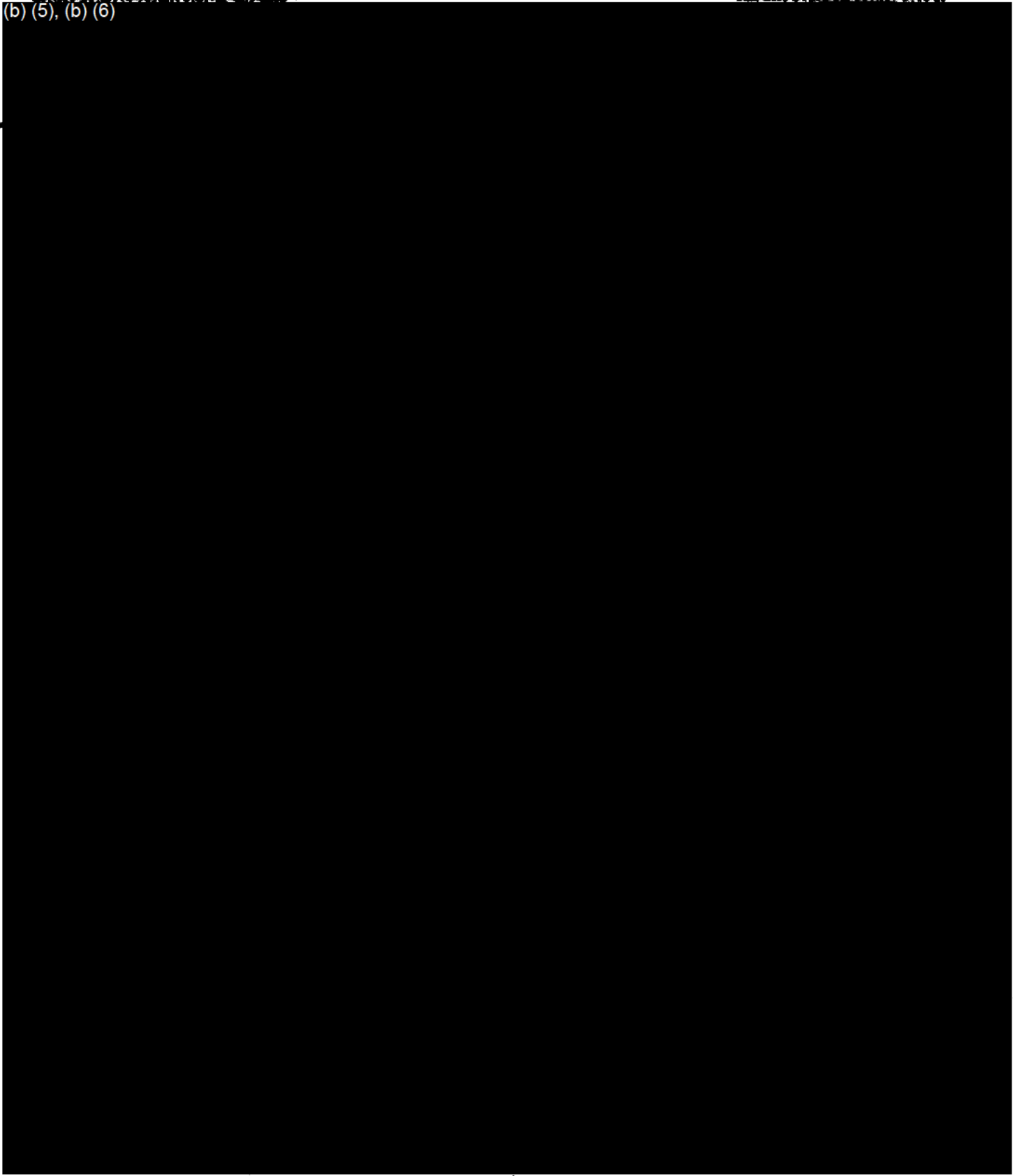


NATOPS EVALUATION REPORT

OPNAV 3710-74-20 SER 0107-1R-300-000

REPORT SYMBOL OPNAV 3710-21

(b) (5), (b) (6)



DEPARTMENT OF THE NAVY
VOLUNTARY STATEMENT

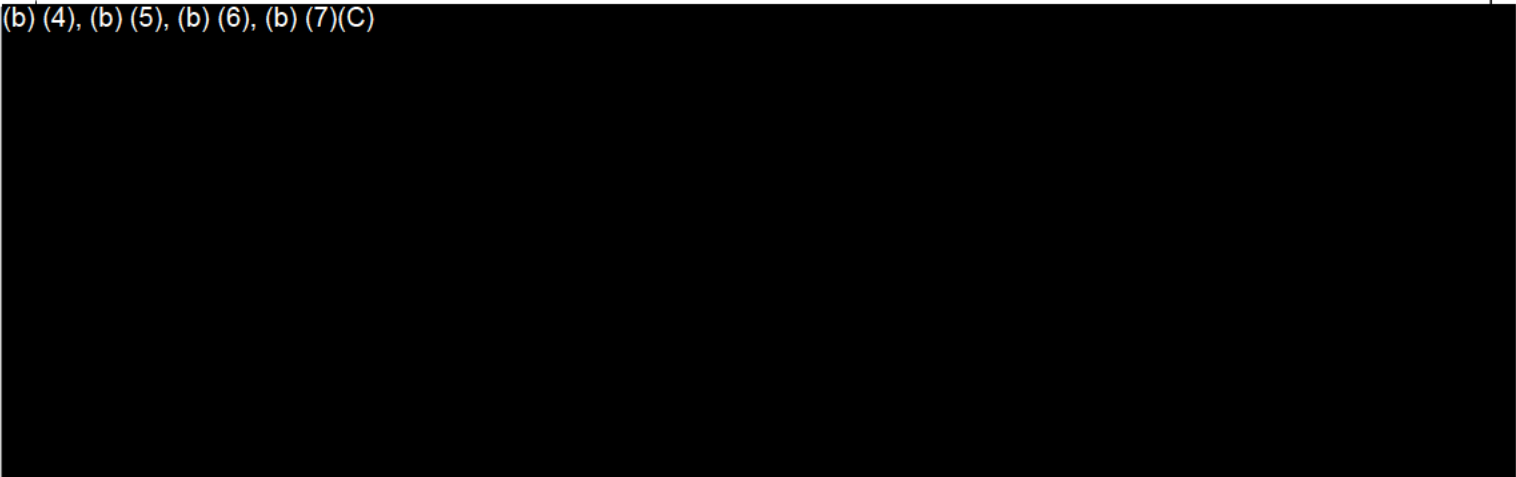
1. Place

USS BRADLEY (FFG 49)

2. Date

3 Jan 2013

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DEPARTMENT OF THE NAVY
VOLUNTARY STATEMENT

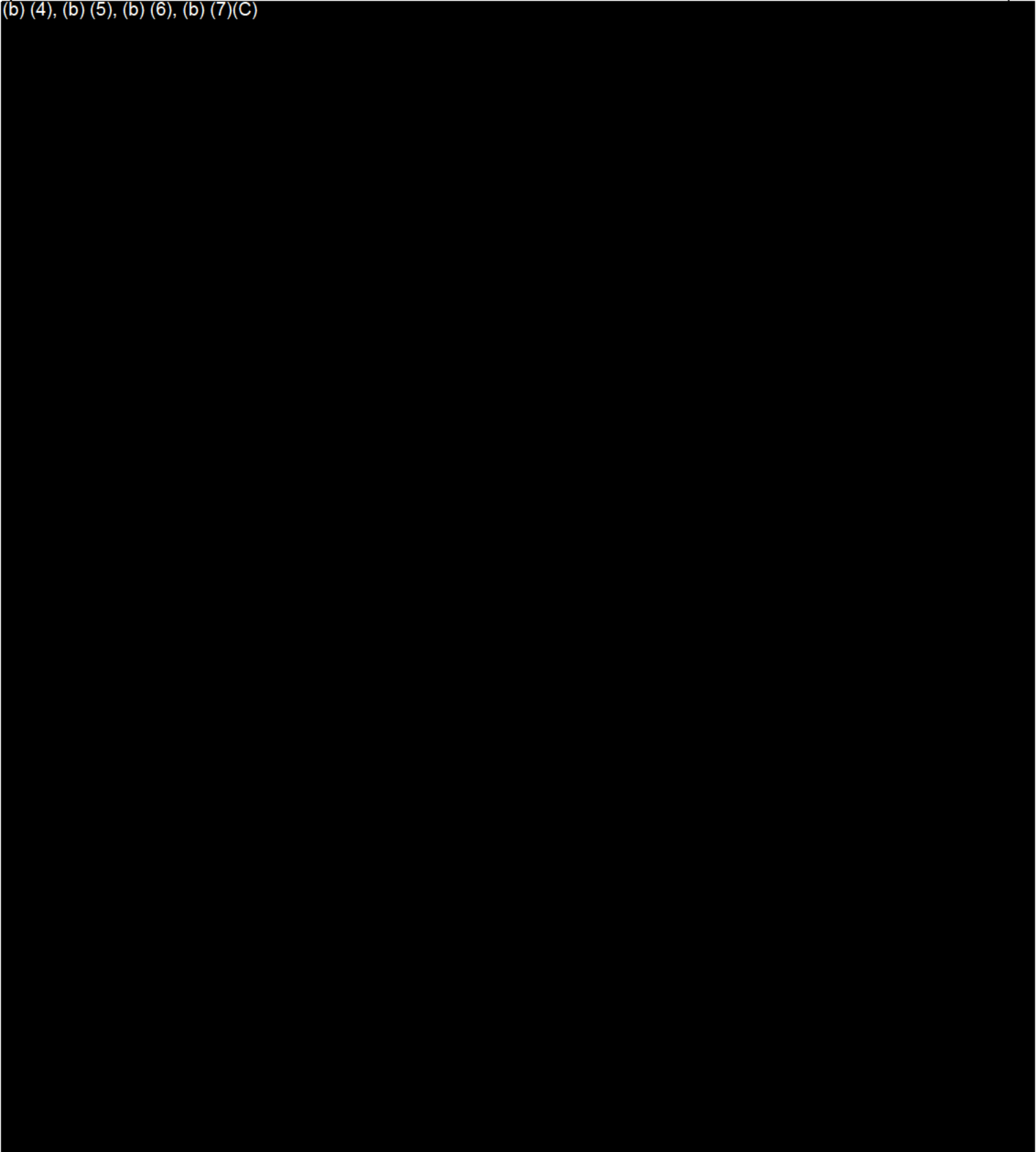
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USS BRADLEY (FFG 49)

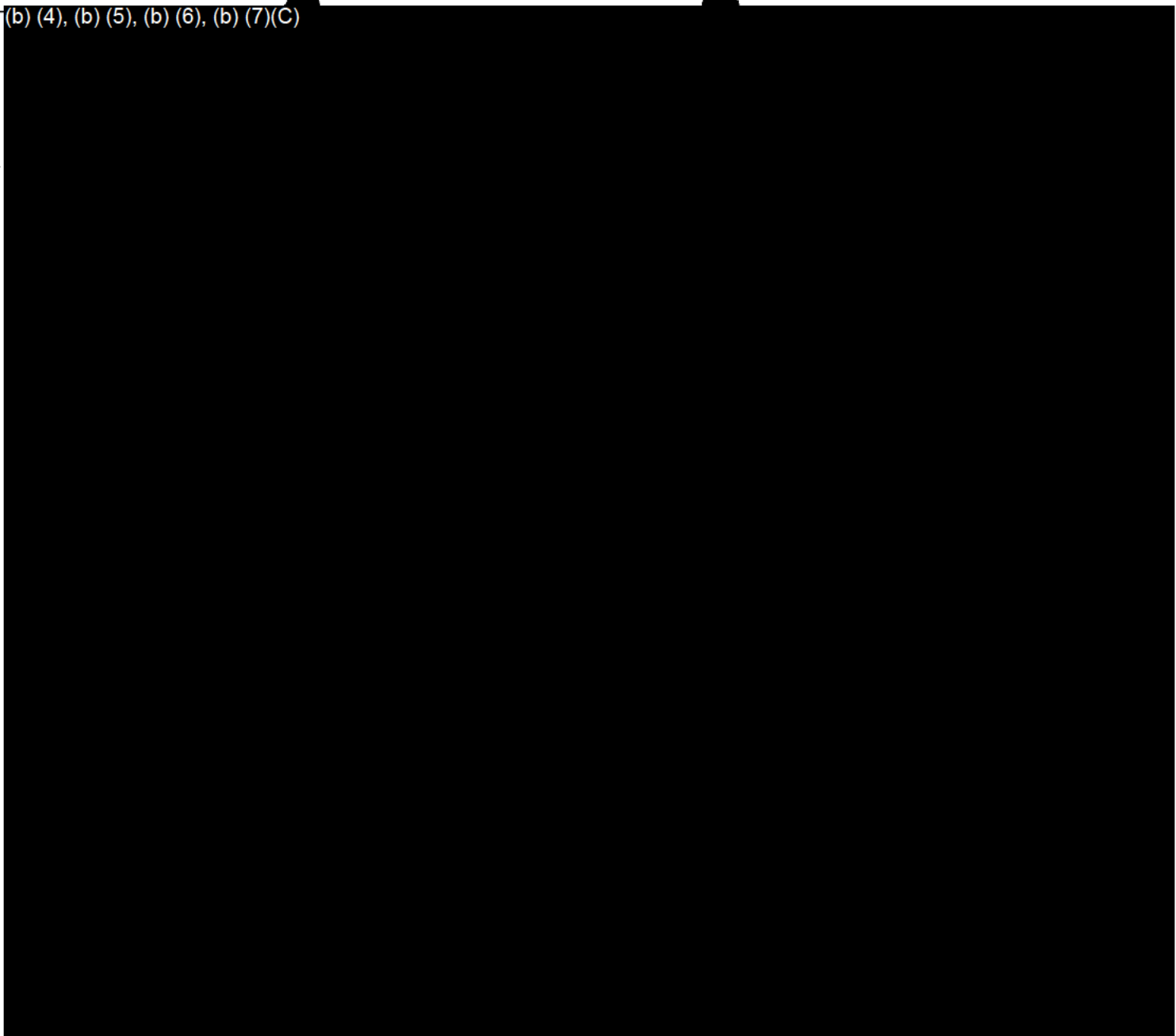
2. Date

2 Jan 2013

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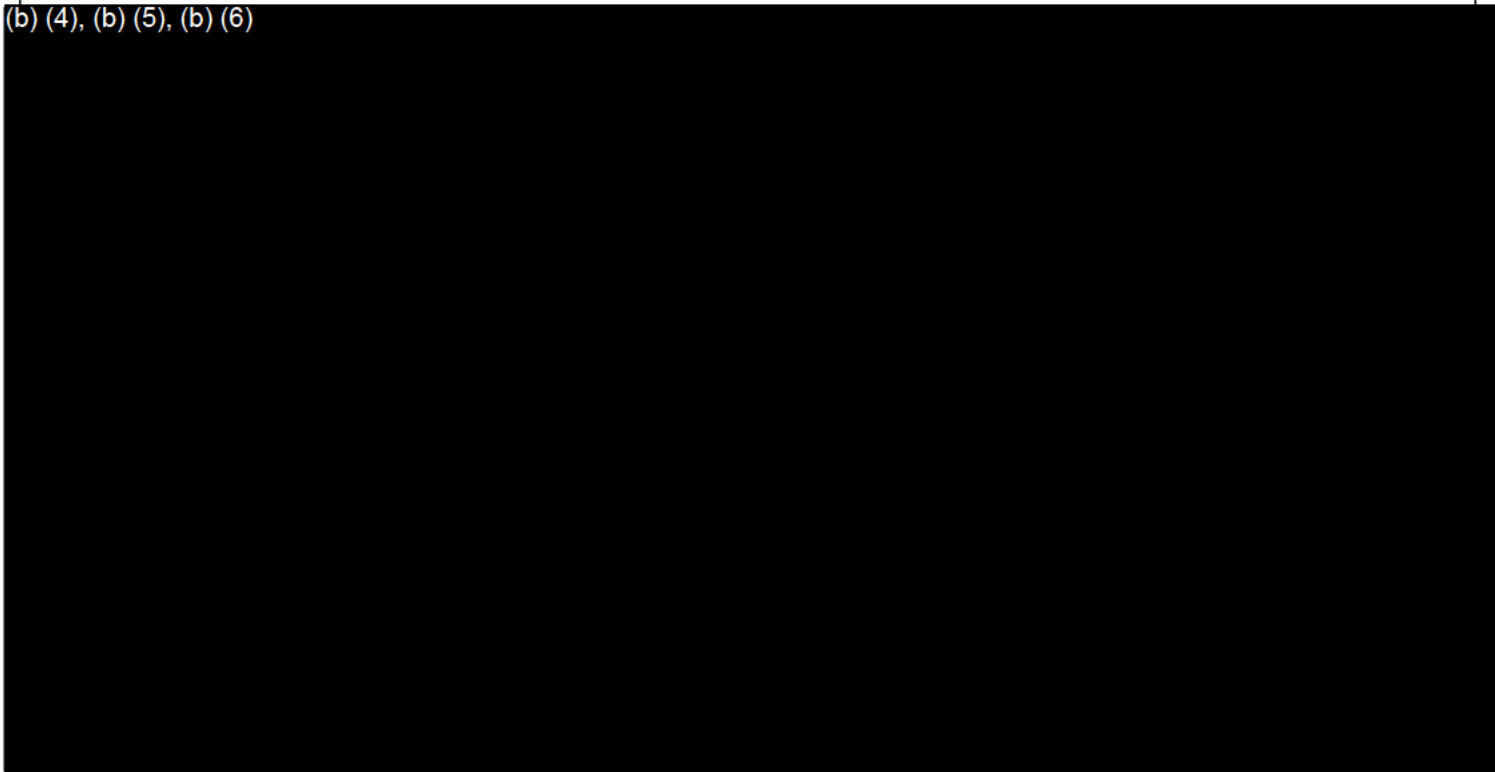
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DEPARTMENT OF THE NAVY
VOLUNTARY STATEMENT

1. Place
USS BRADLEY (FFG 49)
2. Date
3 Jan 2013

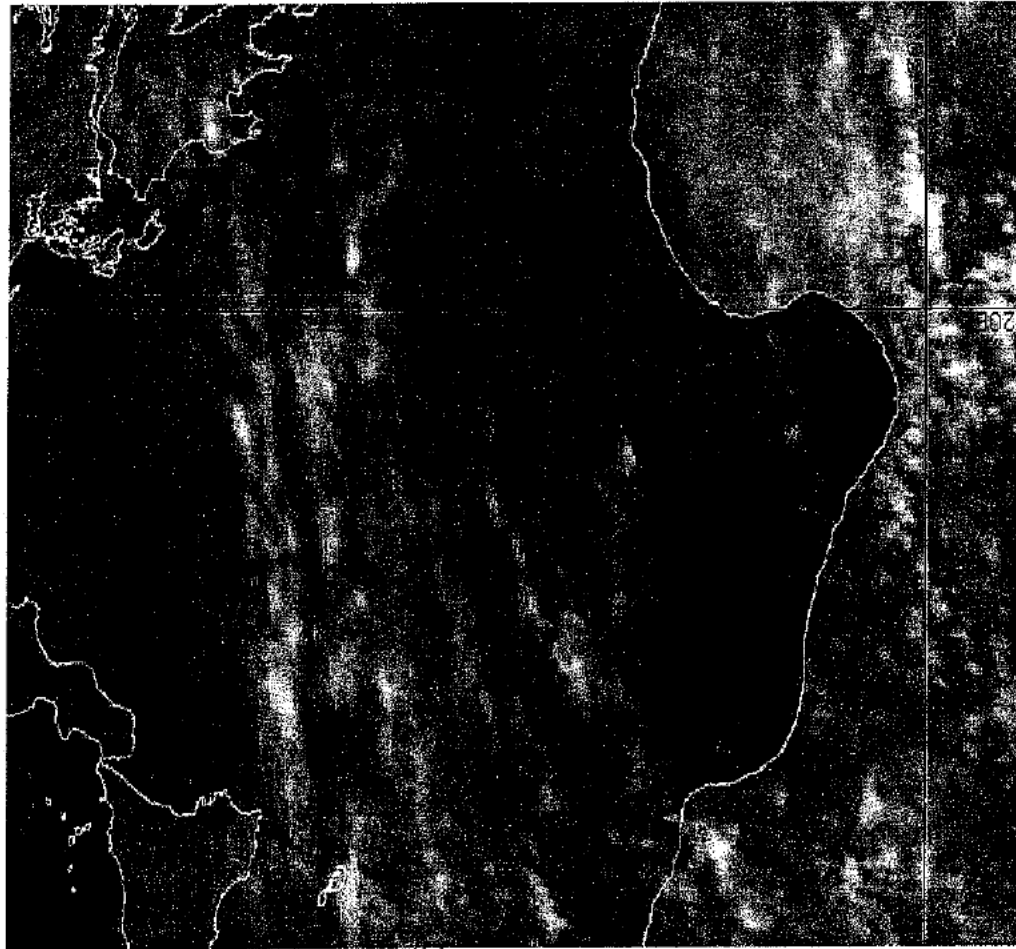
(b) (4), (b) (5), (b) (6)





UNCLASSIFIED

FIRE SCOUT AVIATION WEATHER



VIS SAT VT 11 DEC: 1030Z

* ICING AND TURB ARE ASSUMED W/ THUNDERSTORMS

	WEDNESDAY 12DEC12
WINDS (KTS):	NW 10-15 G20KT DCRNG NNW 5-10 G15KT AFT 12Z
SKY/COND BASES/TOPS:	SCT V BKN 025-030/065 SCT V BKN 100/140
VIS (NM) / WX:	3-5 NM/ SHRA
SEAS (FT):	NW 5-7 FT ABTNG NW 4-6 FT AFT 18Z
SFC TEMPS: MX/MN	MAX: 15C/59F MIN: 08C/46F
ICING	NONE
TURB	NONE

QNH: 30.02INS
MAX PA: 56
MAX DA: 477
FRZ LVL: 060-080

FLTLVL WINDS/TEMPS	
FL010	28511KT/13C
FL030	28515KT/08C
FL050	28518KT/03C
FL070	28018KT/-01C
FL090	28018KT/-03C

UNCLASSIFIED

(b) (5), (b) (6)



WEATHER FOR OP AREA



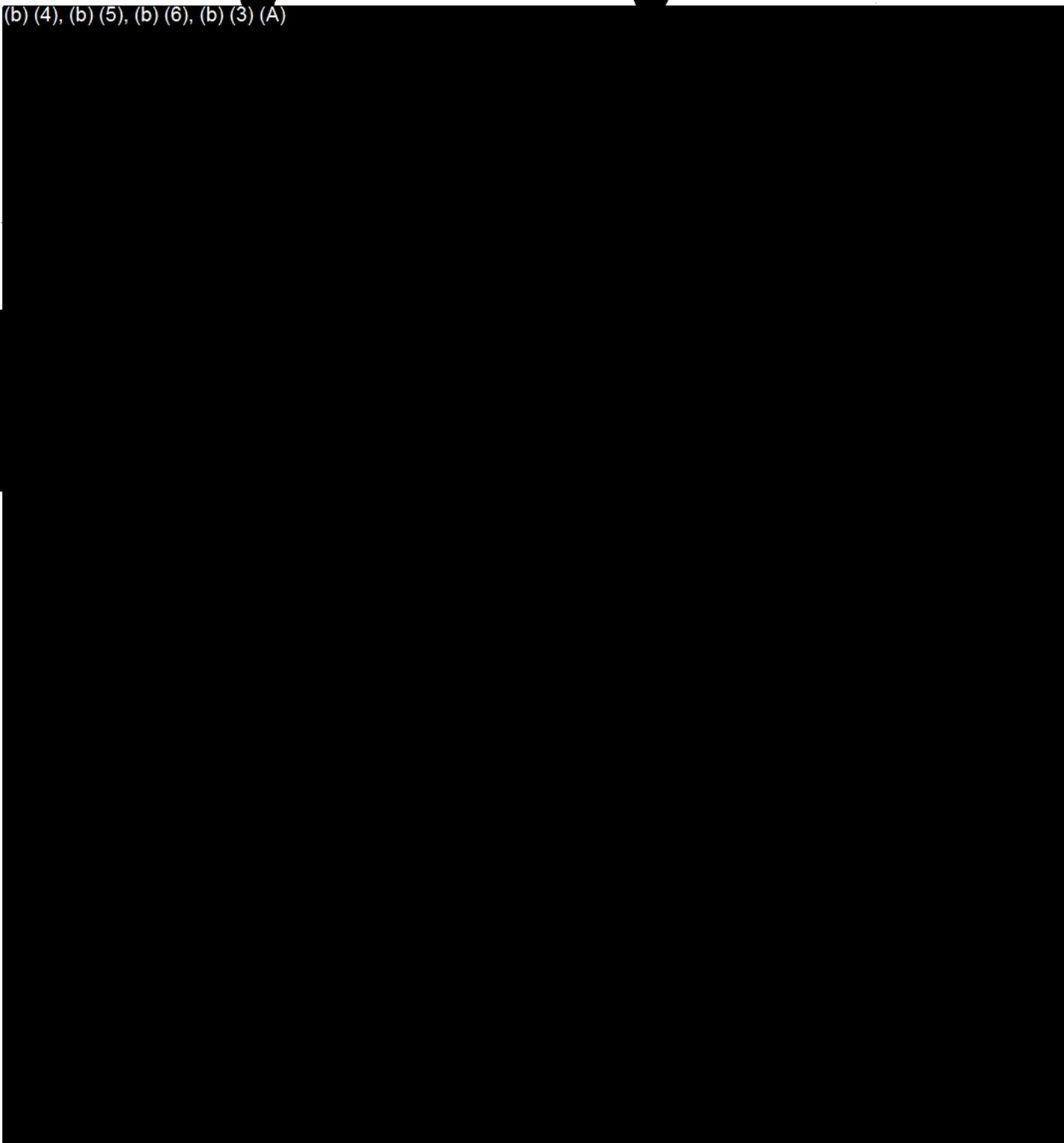
	WEDNESDAY 12DEC12	THURSDAY 13DEC12
WINDS (KTS):	SW 10-15 G20KT DCRNG NW 5-10 G15KT AFT 12Z	NE 5-10KT INCRNG SE 5-10 G15KT AFT 12Z
SKY: COND BASES/TOPS:	SCT V BKN 030/060 SCT V BKN 080/120	FEW V SCT 030/060 FEW V SCT 080/120
VIS (NM) / WX:	4-6NM/ ISLD SHRA	4-6NM/ ISLD SHRA
TEMPS MX/MN:	MAX: 15C/59F MIN: 08C/46F	MAX: 15C/59F MIN: 08C/46F
SR/SS/%ILLUM	0630L/1634L/00%	0630L/1634L/00%

QNH: 30.02INS
MAX PA: 99
MAX DA: 41

FL LVL	WINDS/TEMPS
FL010	30012KT/13C
FL030	30015KT/08C
FL050	29517KT/03C
FL070	29517KT/-01C
FL090	29517KT/-03C

(b) (4), (b) (5), (b) (6)

(b) (4), (b) (5), (b) (6), (b) (3) (A)



DEPARTMENT OF THE NAVY
VOLUNTARY STATEMENT

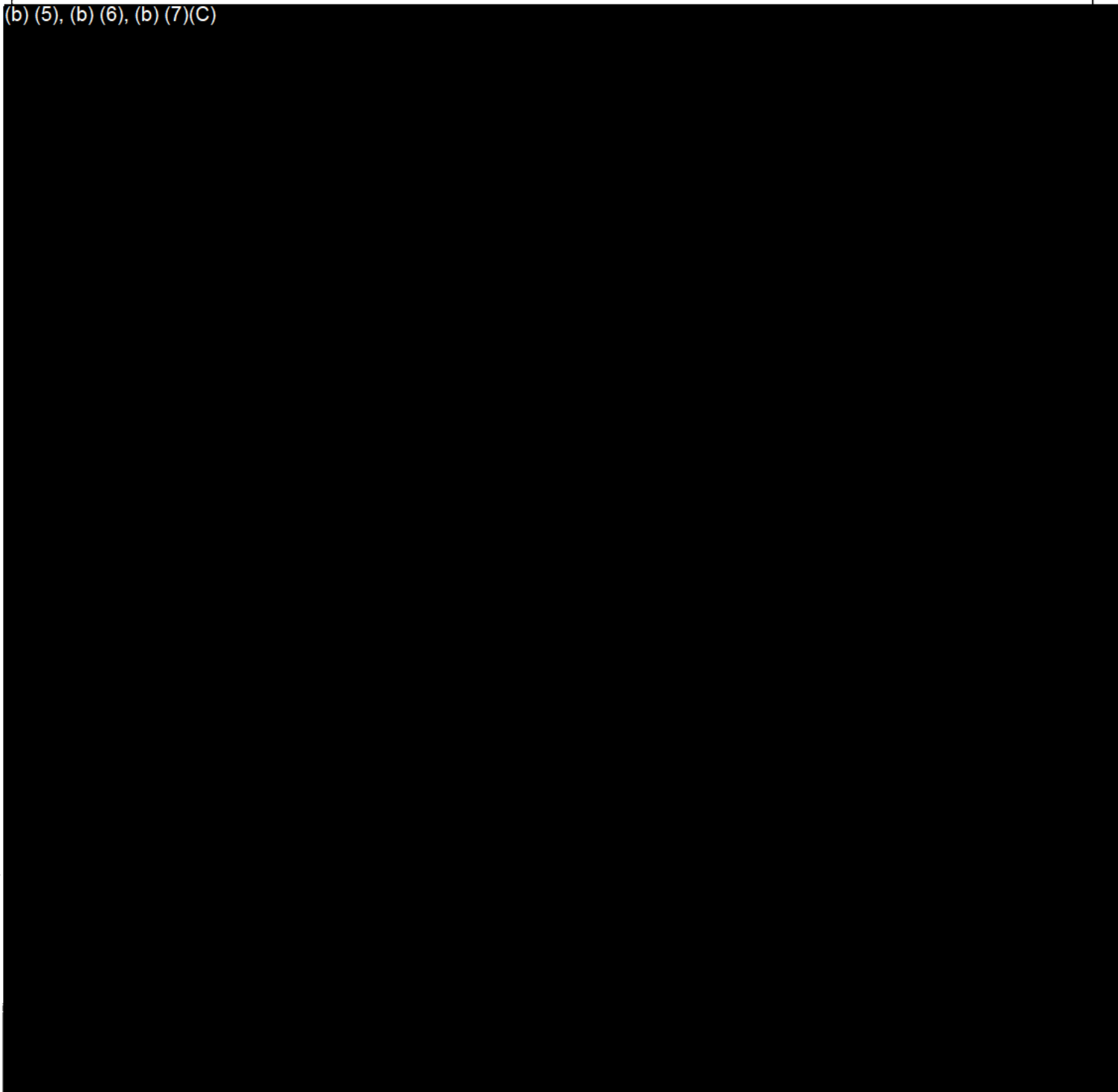
1. Place

USS BRADLEY (FFG 49)

2. Date

3 Jan 2013

(b) (5), (b) (6), (b) (7)(C)

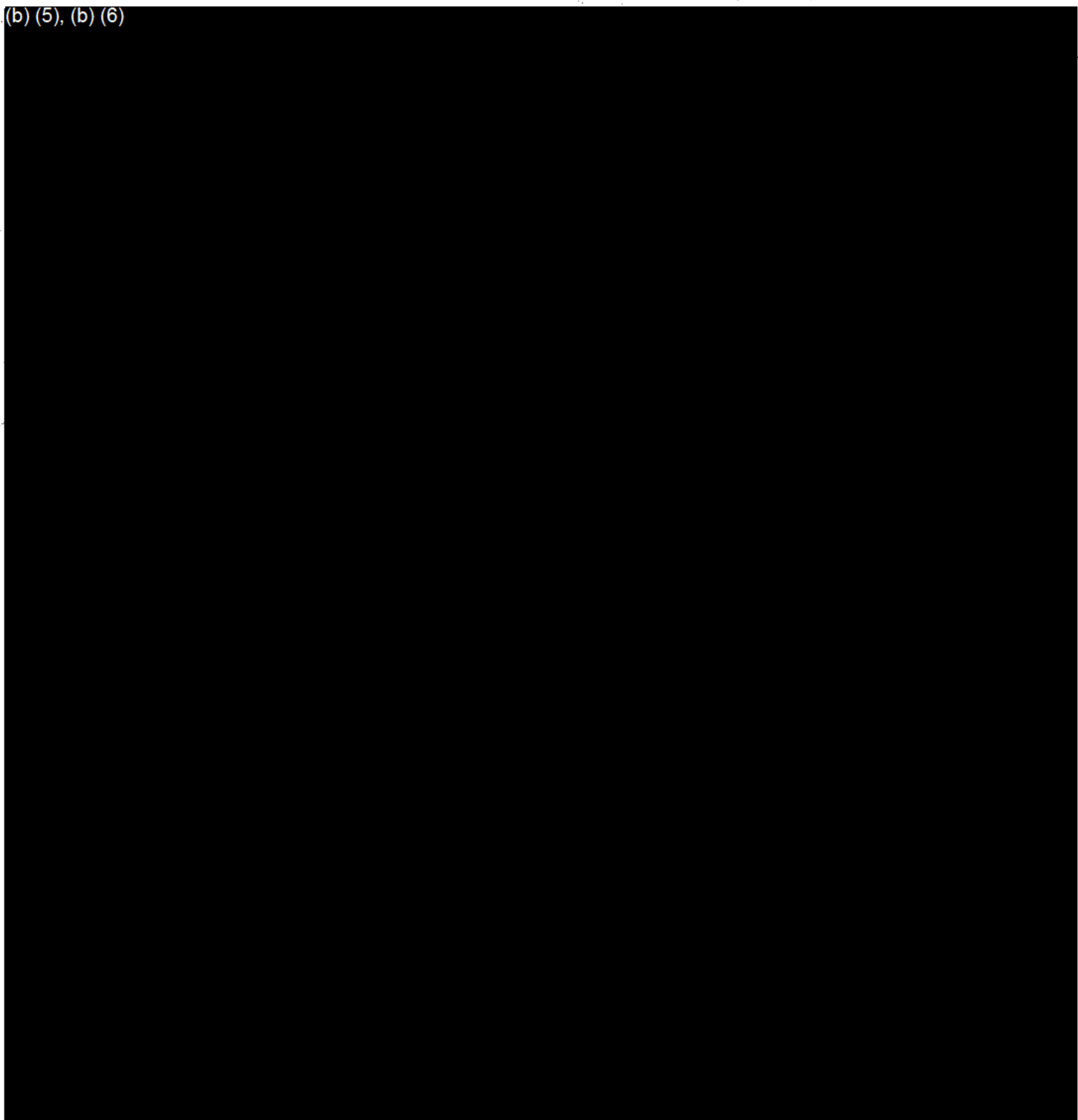




FLIGHT SCHEDULE
WEDNESDAY
12 DECEMBER 2012
JULIAN: 2347



(b) (5), (b) (6)



ENCLOSURE (2)

DEPARTMENT OF THE NAVY
VOLUNTARY STATEMENT

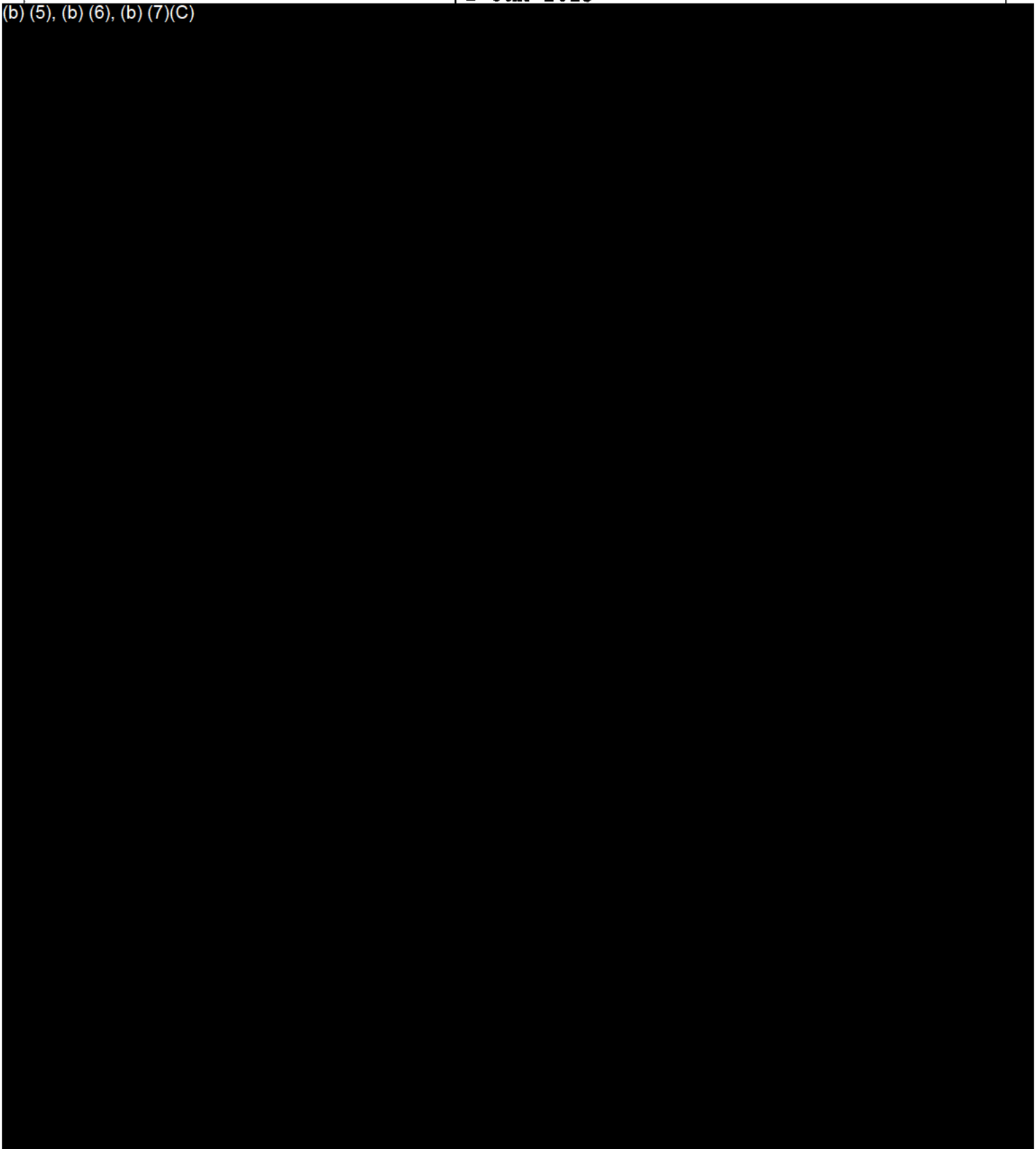
1. Place

USS BRADLEY (FFG 49)

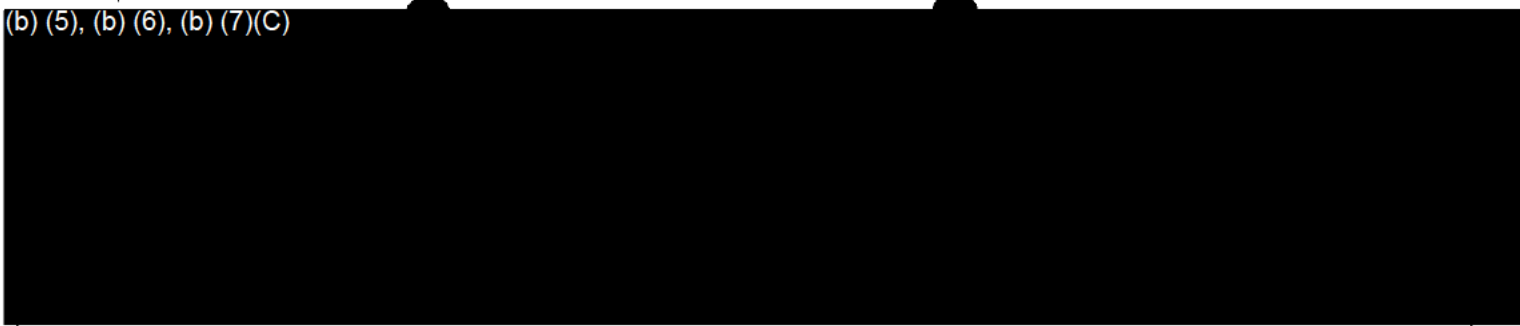
2. Date

2 Jan 2013

(b) (5), (b) (6), (b) (7)(C)



(b) (5), (b) (6), (b) (7)(C)



DEPARTMENT OF THE NAVY
VOLUNTARY STATEMENT


1. Place

USS BRADLEY (FFG 49)

2. Date

2 Jan 2013

(b) (5), (b) (6), (b) (7)(C)



DEPARTMENT OF THE NAVY
VOLUNTARY STATEMENT

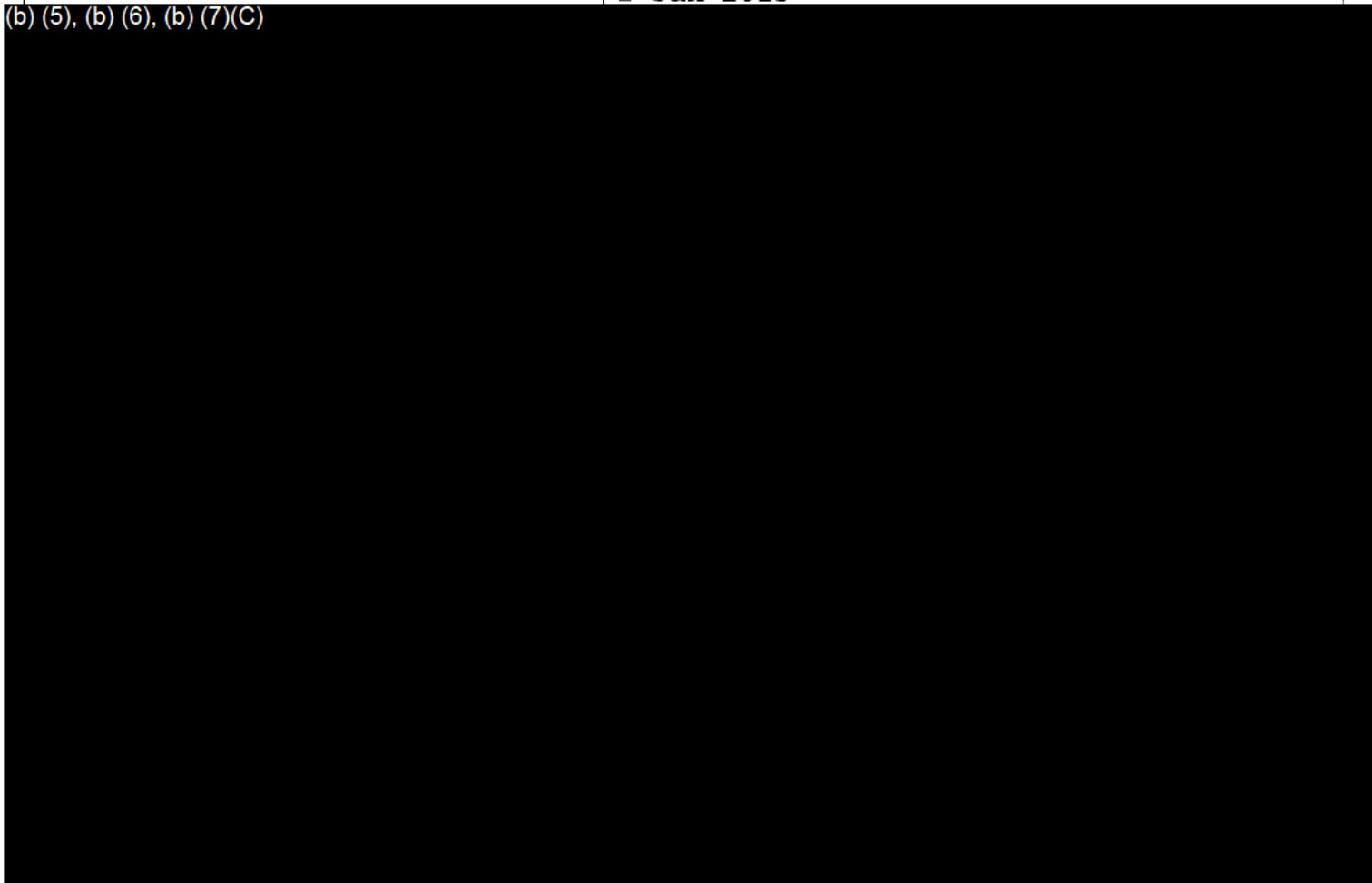
1. Place

USS BRADLEY (FFG 49)

2. Date

2 Jan 2013

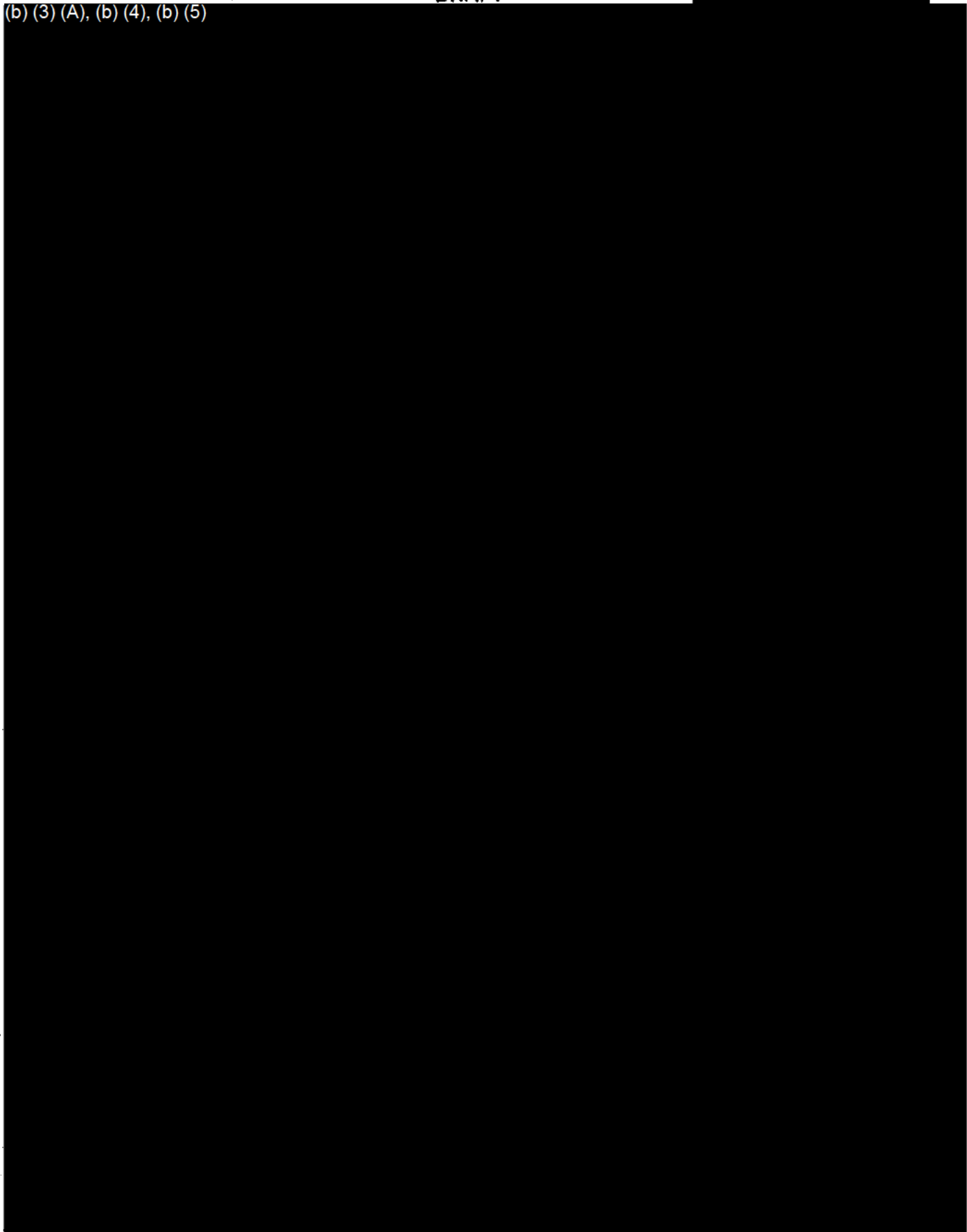
(b) (5), (b) (6), (b) (7)(C)



DRAFT

(b) (3) (A), (b) (4), (b) (5)

(b) (3) (A), (b) (4), (b) (5)



(b) (3) (A),
(b) (4), (b)
(5)

DRAFT

ENCLOSURE (25)

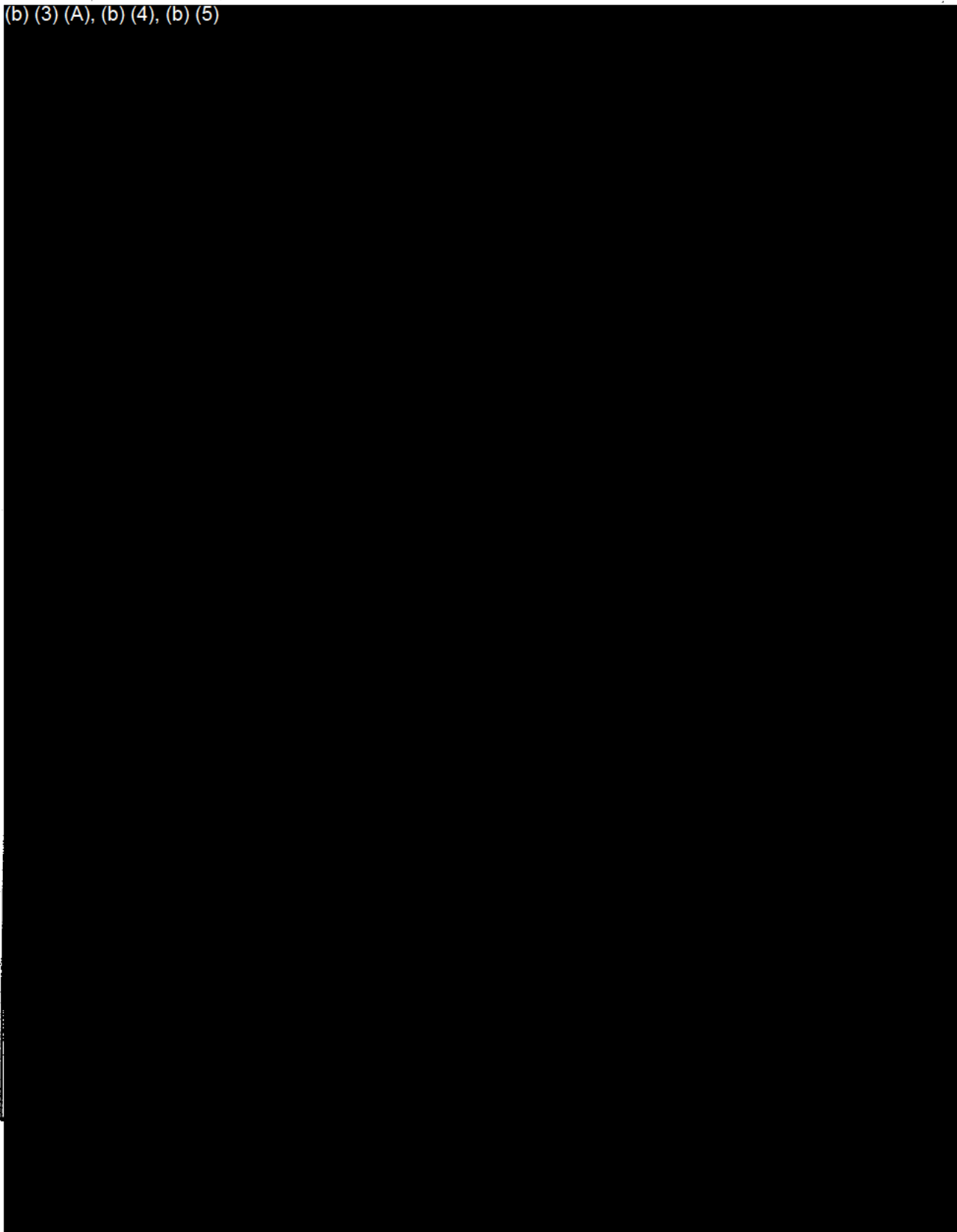
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DRAFT

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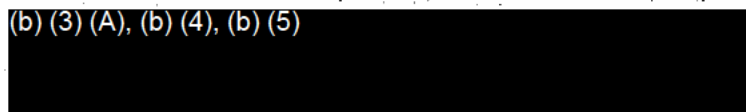
(b) (3) (A), (b) (4), (b) (5)



(b) (3) (A),
(b) (4), (b)

DRAFT

(b) (3) (A), (b) (4), (b) (5)



DEPARTMENT OF THE NAVY
VOLUNTARY STATEMENT


1. Place

USS BRADLEY (FFG 49)

2. Date

2 Jan 2013

(b) (5), (b) (6), (b) (7)(C)



DEPARTMENT OF THE NAVY
VOLUNTARY STATEMENT

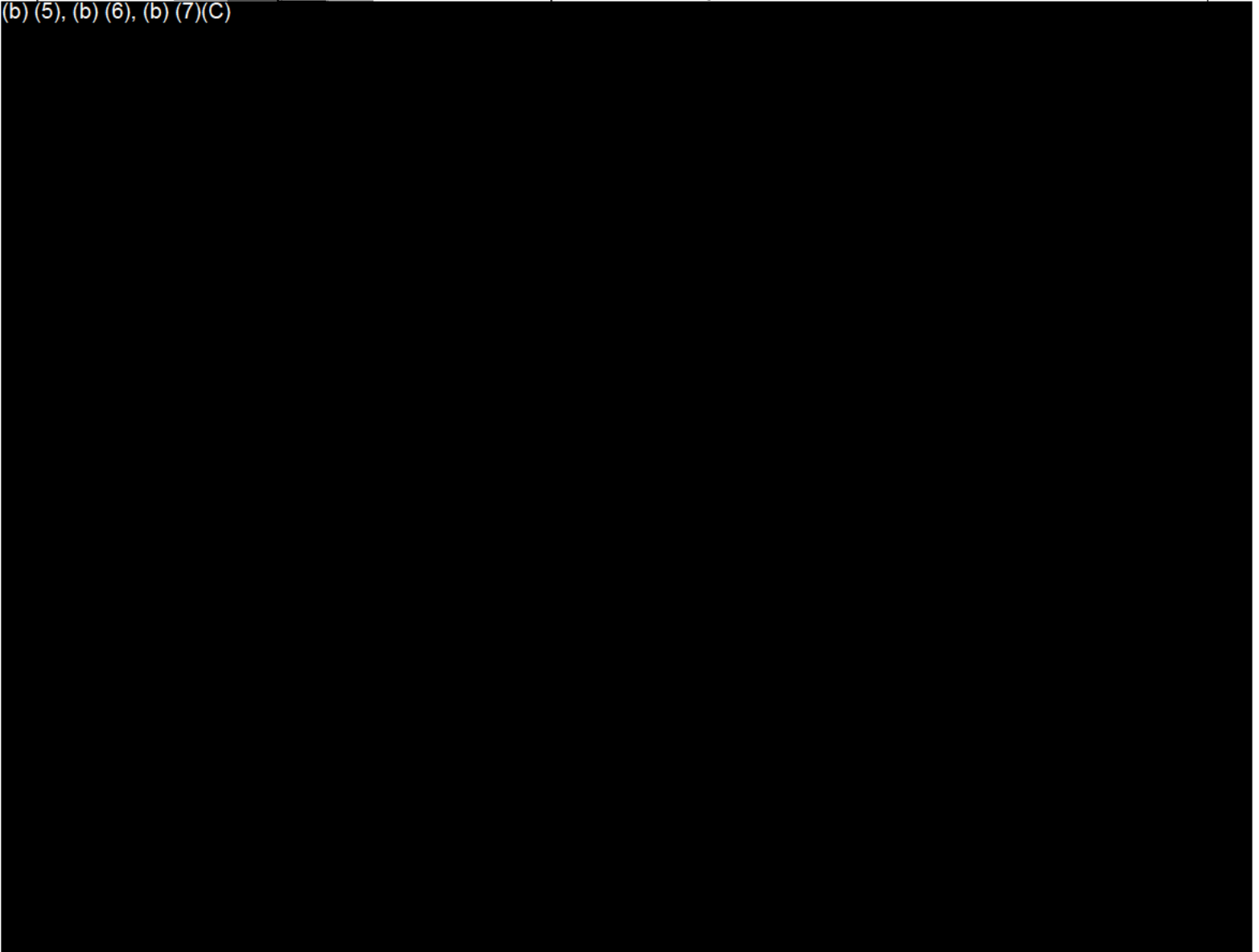
1. Place

USS BRADLEY (FFG 49)

2. Date

2 Jan 2013

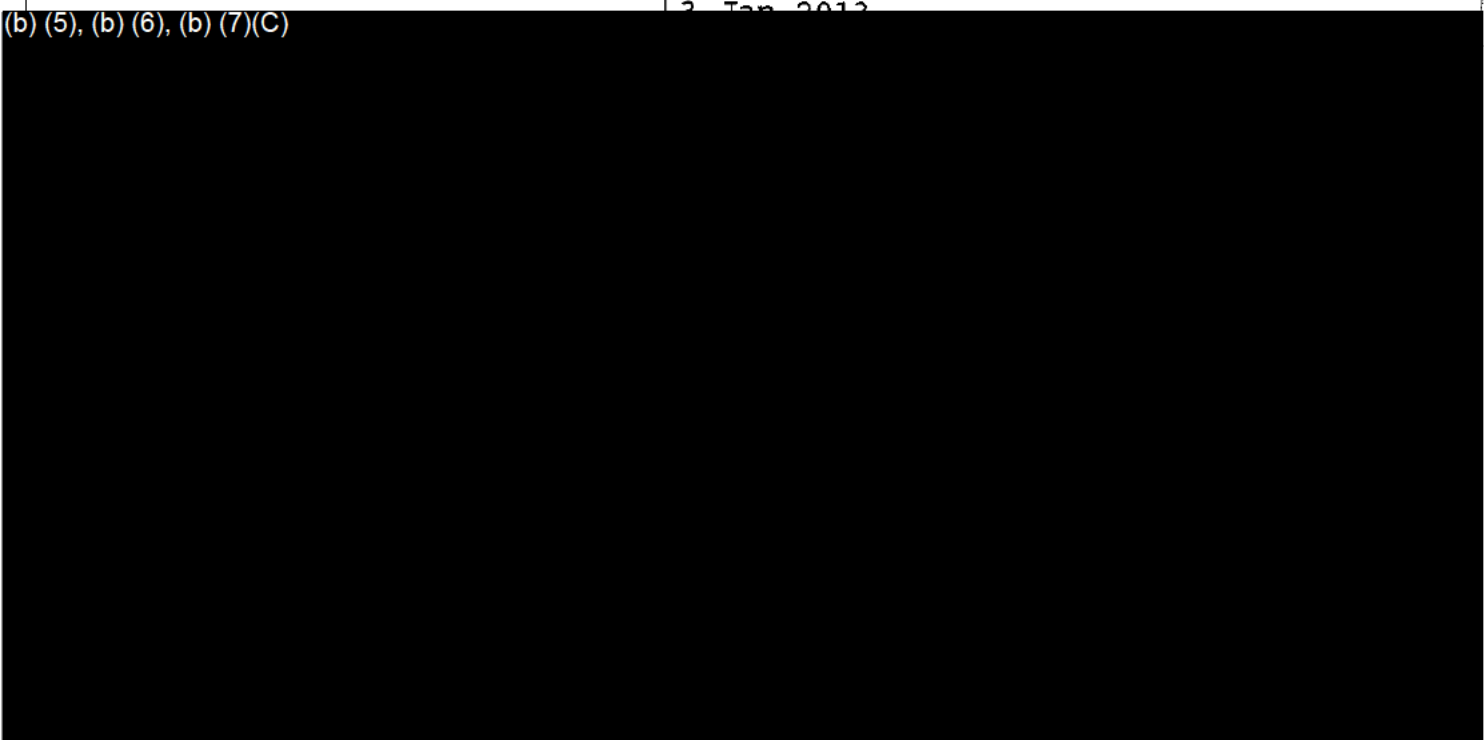
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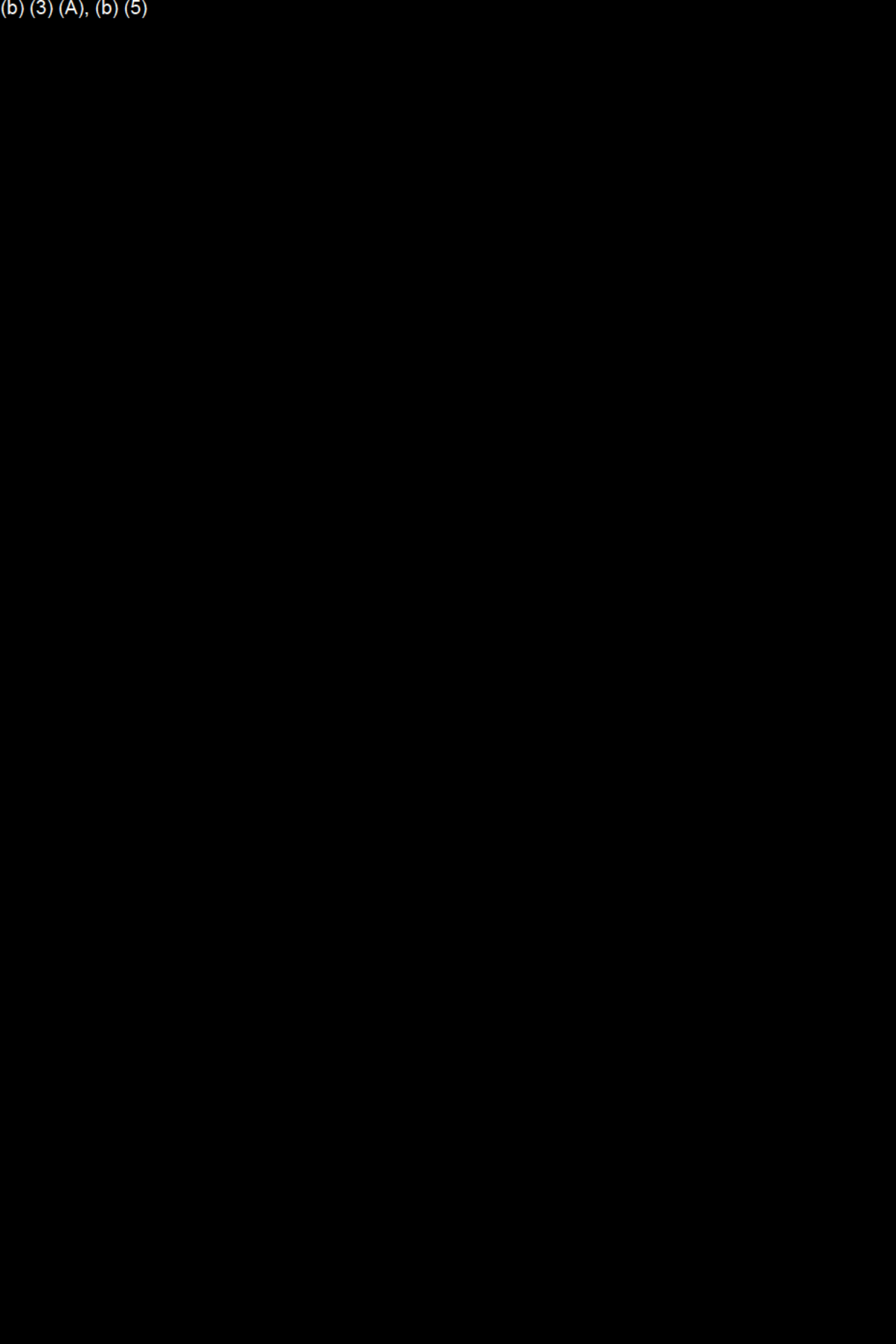
DEPARTMENT OF THE NAVY
VOLUNTARY STATEMENT

1. Place
USS BRADLEY (FFG 49)
2. Date
3 Jan 2012

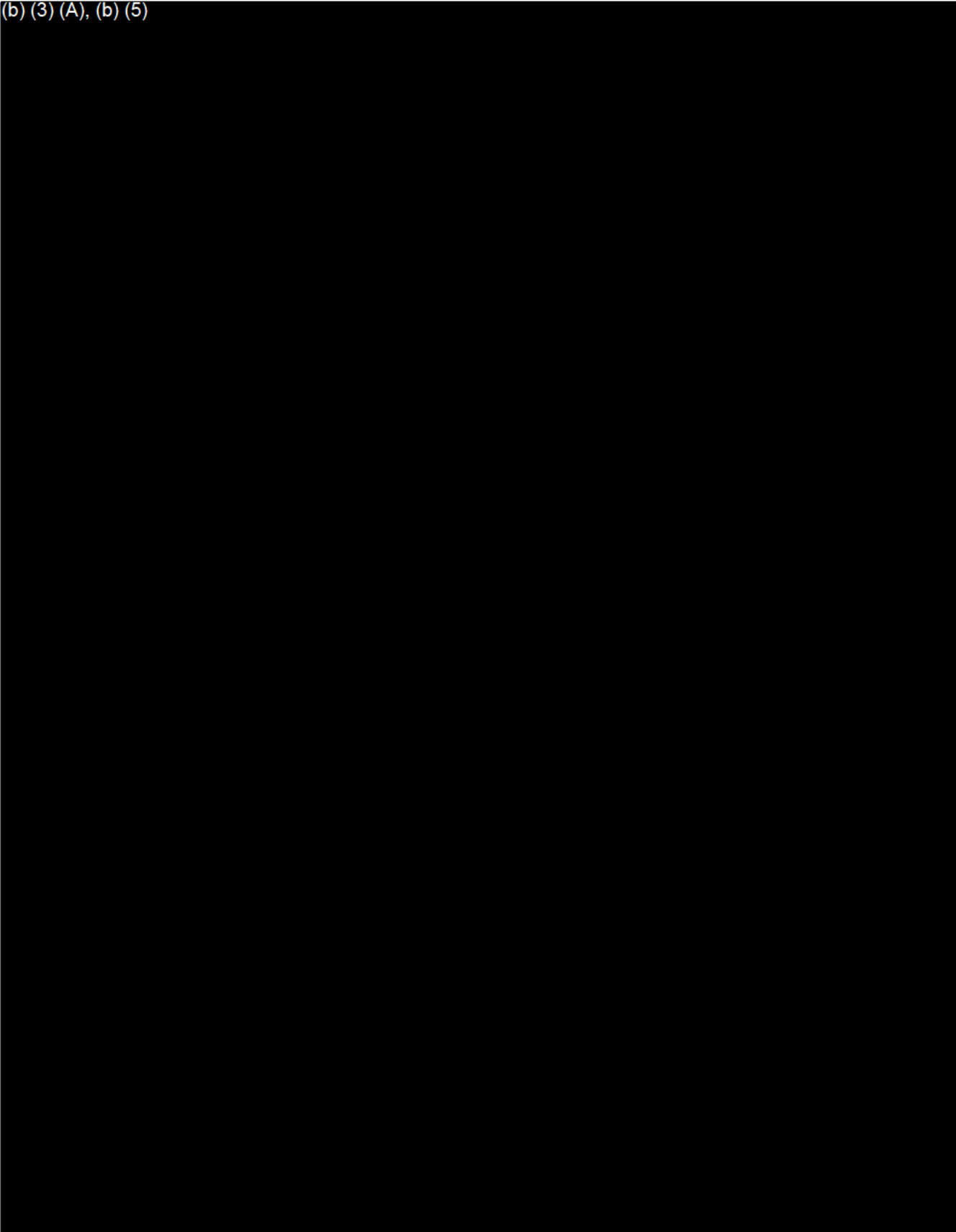
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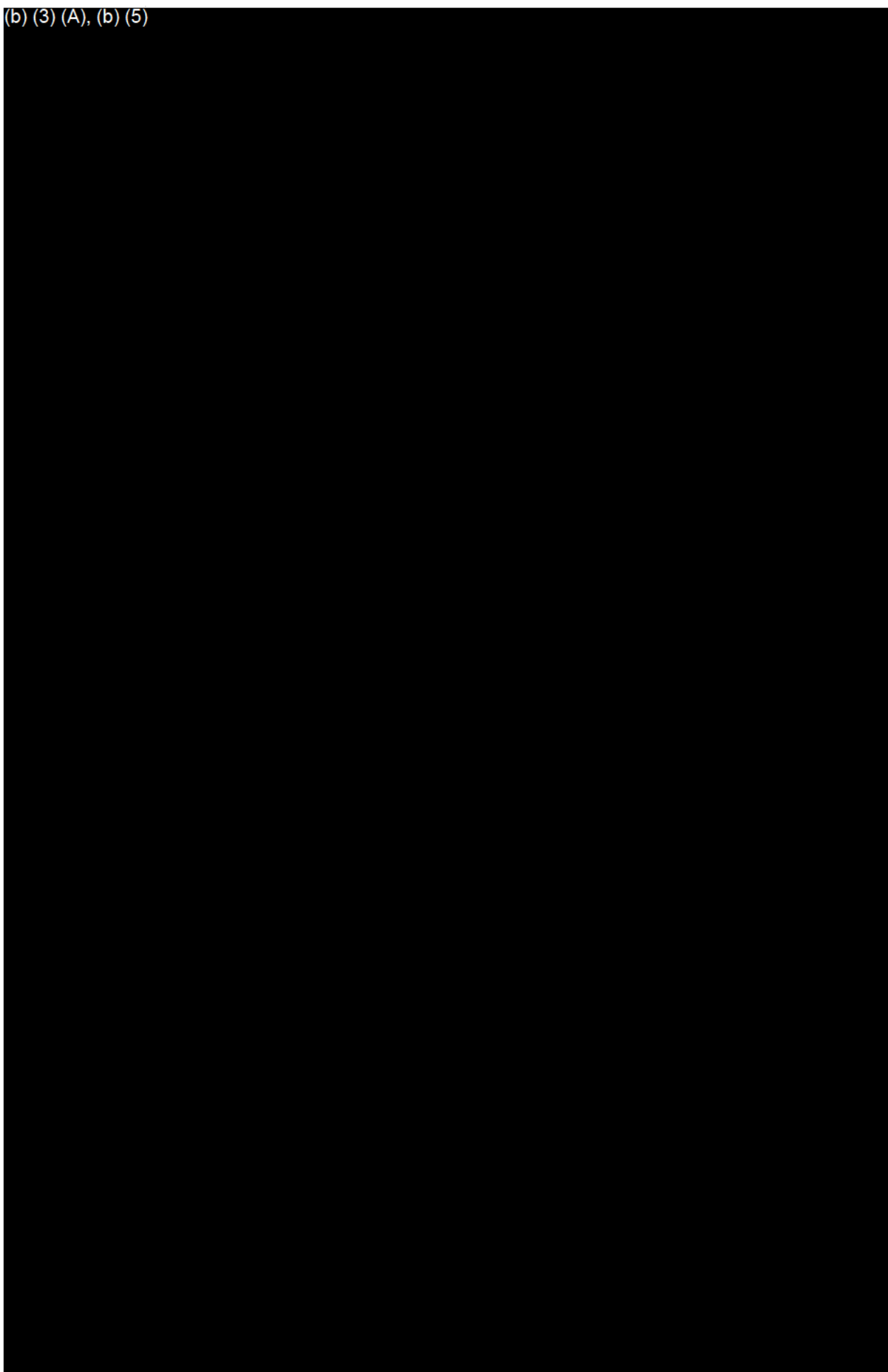
(b) (3) (A), (b) (5)



(b) (3) (A), (b) (5)



(b) (3) (A), (b) (5)



Encl (31)

DEPARTMENT OF THE NAVY
VOLUNTARY STATEMENT

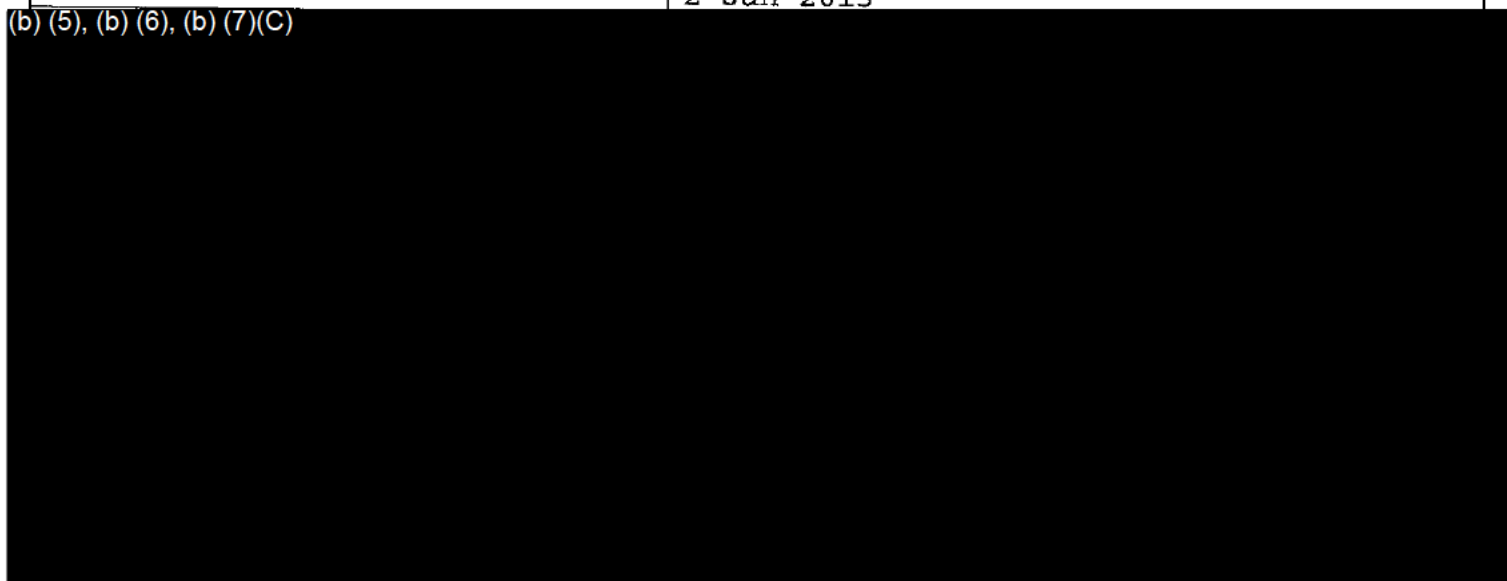
1. Place

USS BRADLEY (FFG 49)

2. Date

2 Jan 2013

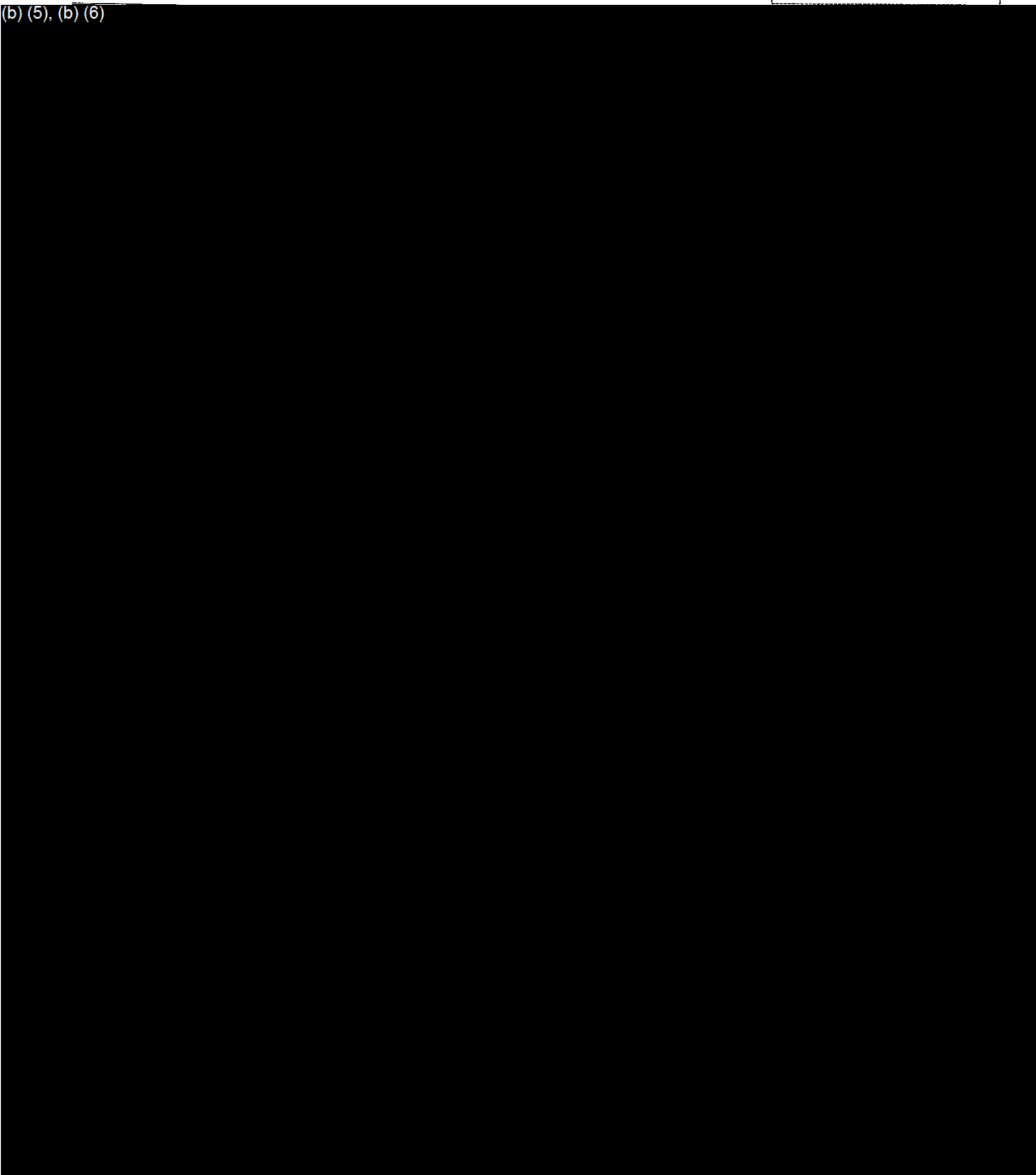
(b) (5), (b) (6), (b) (7)(C)



SHIP'S DECK LOG SHEET

IF CLASSIFIED STAMP
SECURITY MARKING HERE

(b) (5), (b) (6)



REPORT SYMBOL
OPNAV 3100-10

IF CLASSIFIED STAMP REVIEW / DECLASSIFICATION DATE HERE

*U.S. GPO: 2004-604-002/00040

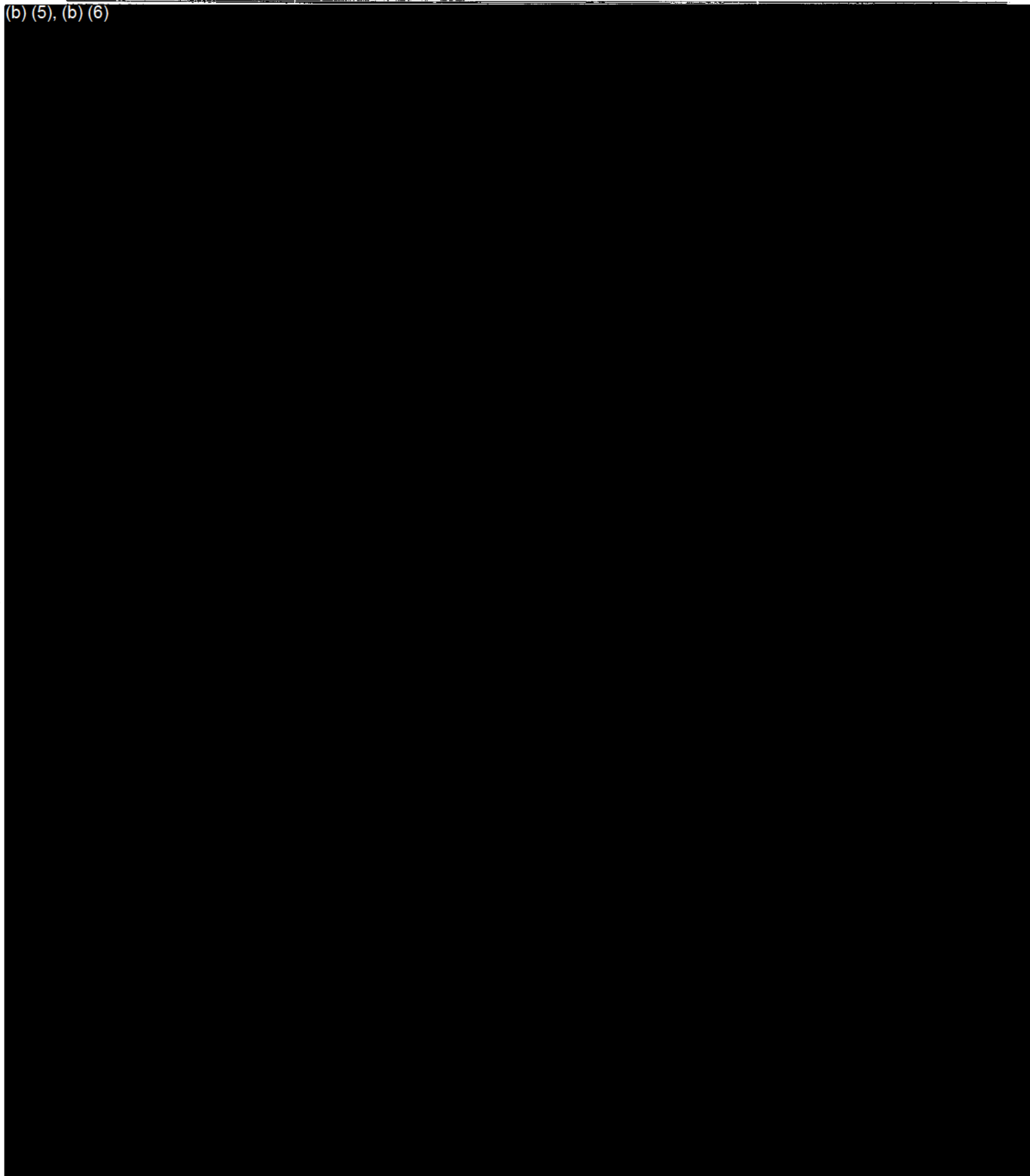
IF CLASSIFIED STAMP
SECURITY MARKING HERE

ENCLOSURE (33)

SHIP'S DECK LOG SHEET

IF CLASSIFIED STAMP
SECURITY MARKING HERE

(b) (5), (b) (6)



REPORT SYMBOL
OPNAV 3100-10

IF CLASSIFIED STAMP REVIEW / DECLASSIFICATION DATE HERE
*U.S. GPO: 2004-604-002/00040

IF CLASSIFIED STAMP
SECURITY MARKING HERE

SHIP'S DECK LOG SHEET

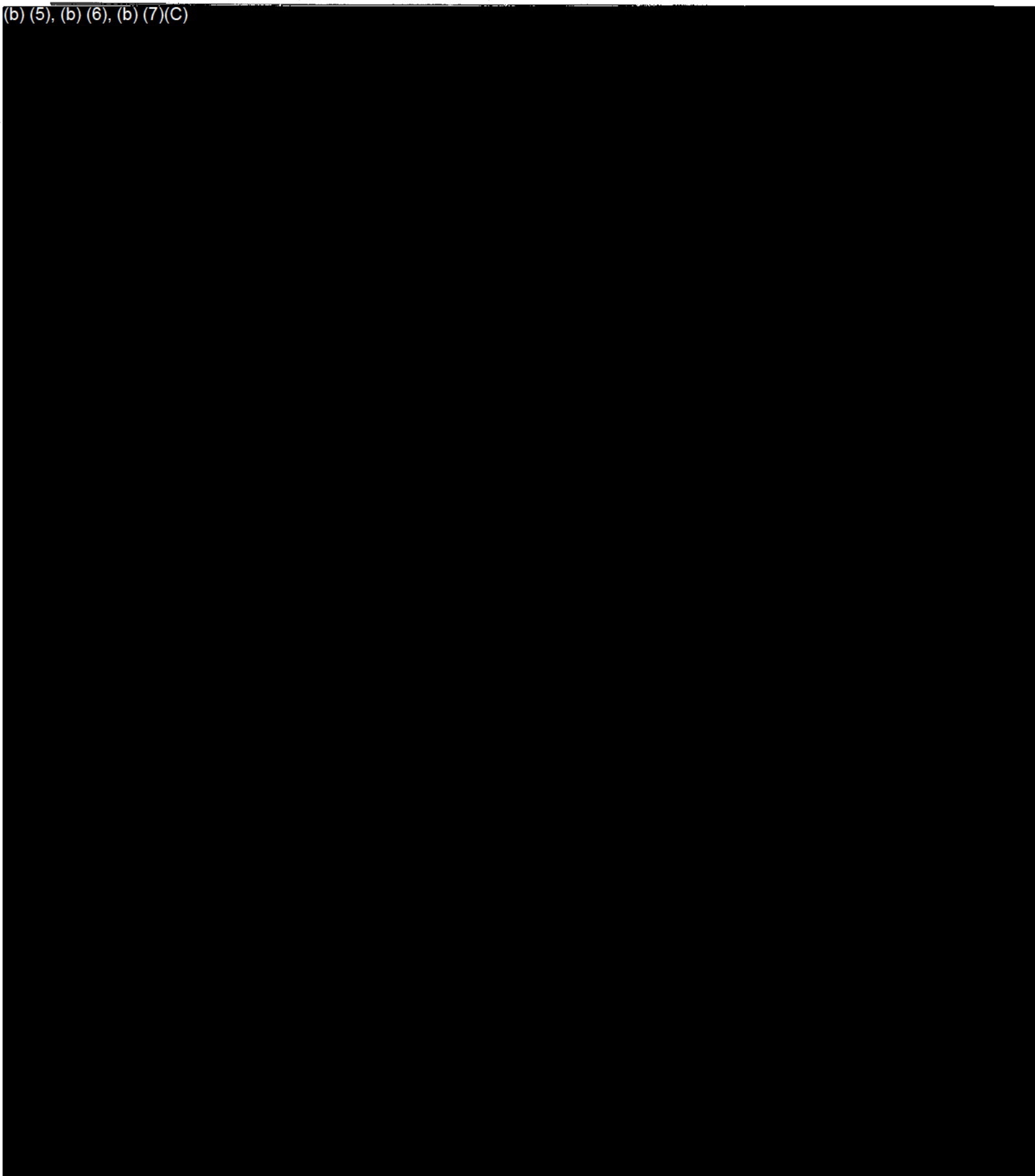
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SHIP'S DECK LOG SHEET

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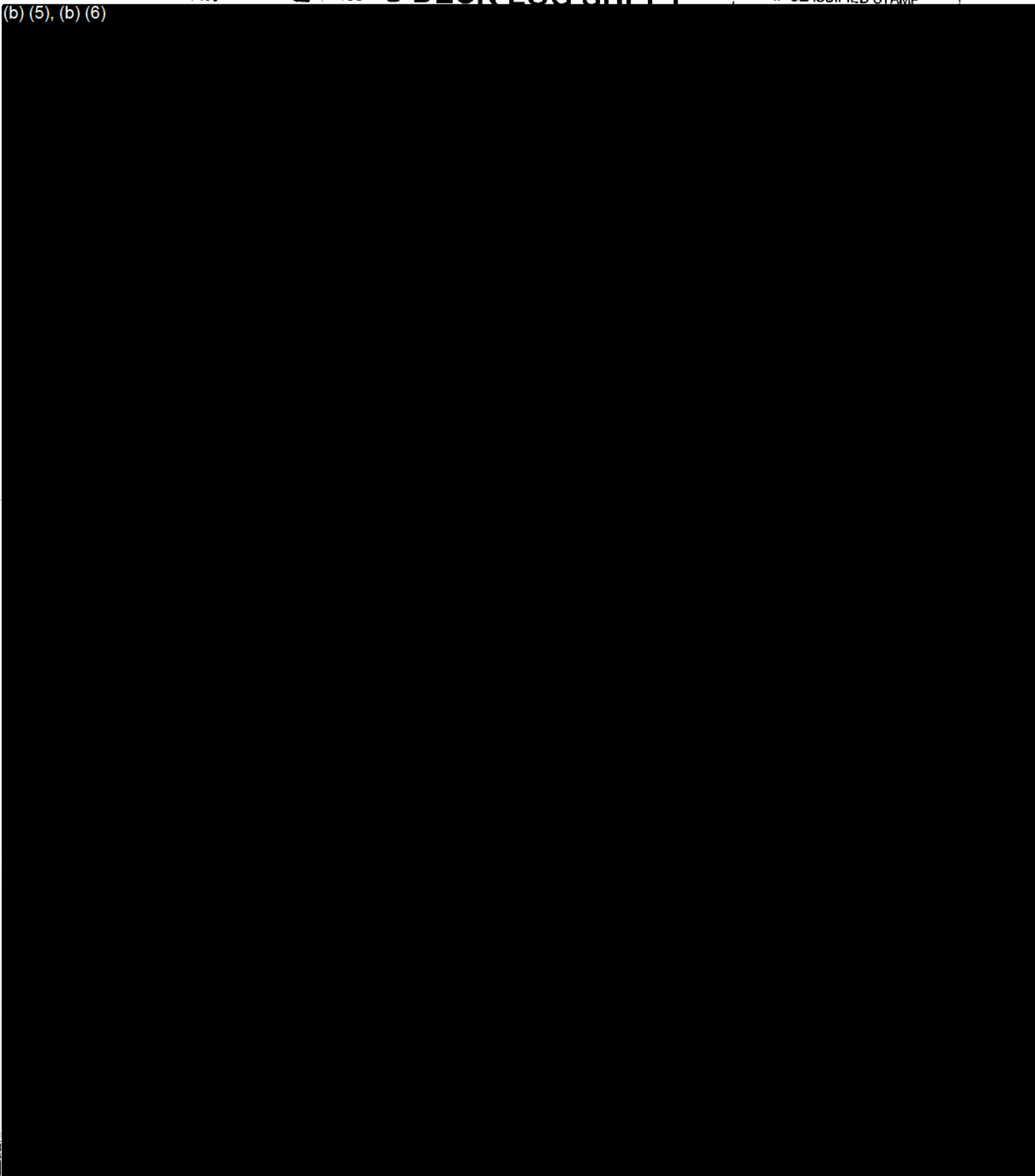
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SHIP'S DECK LOG SHEET

IF CLASSIFIED STAMP

(b) (5), (b) (6)



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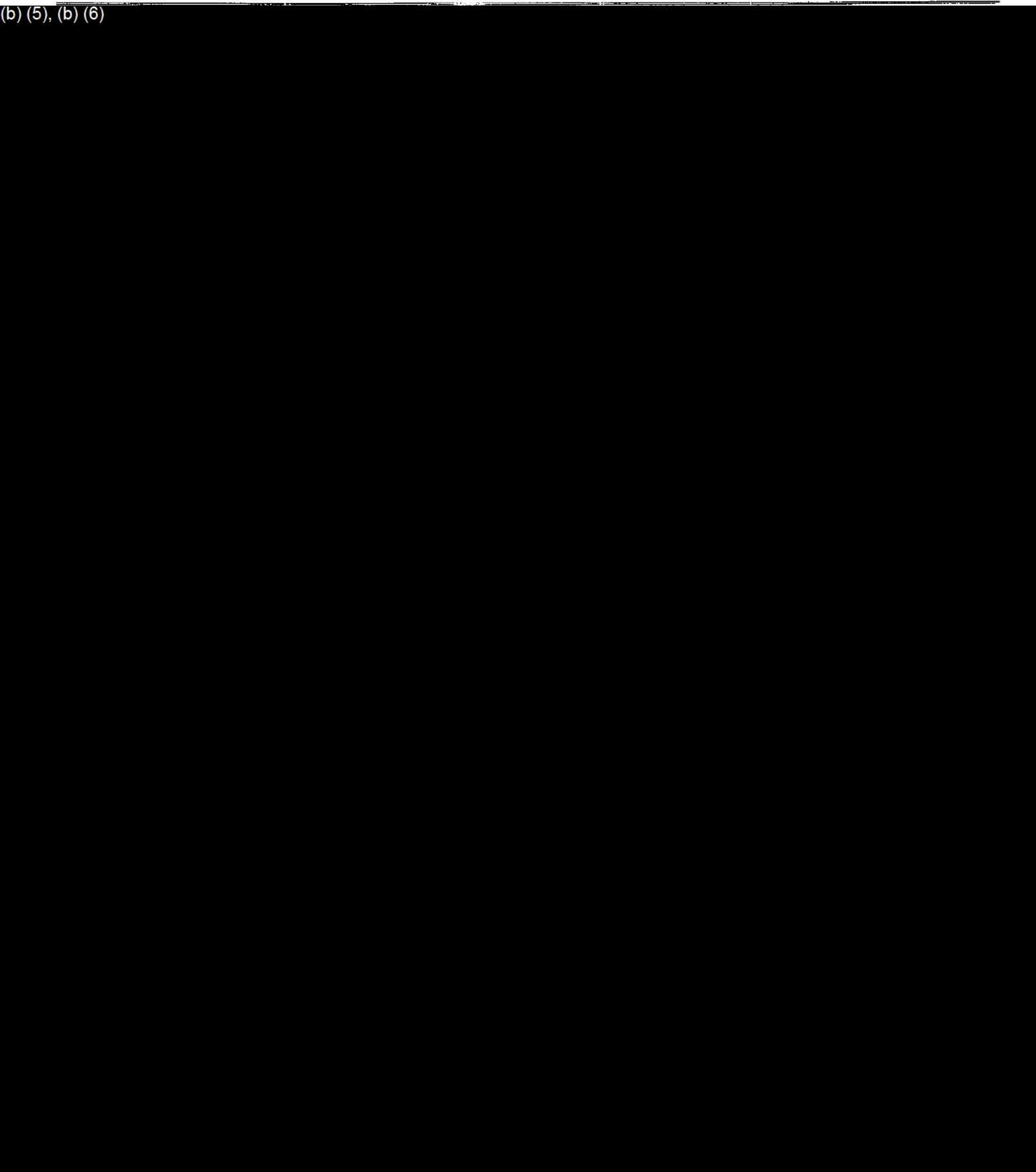
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IF CLASSIFIED STAMP
SECURITY MARKING HERE

SHIP'S DECK LOG SHEET

IF CLASSIFIED STAMP
SECURITY MARKING HERE

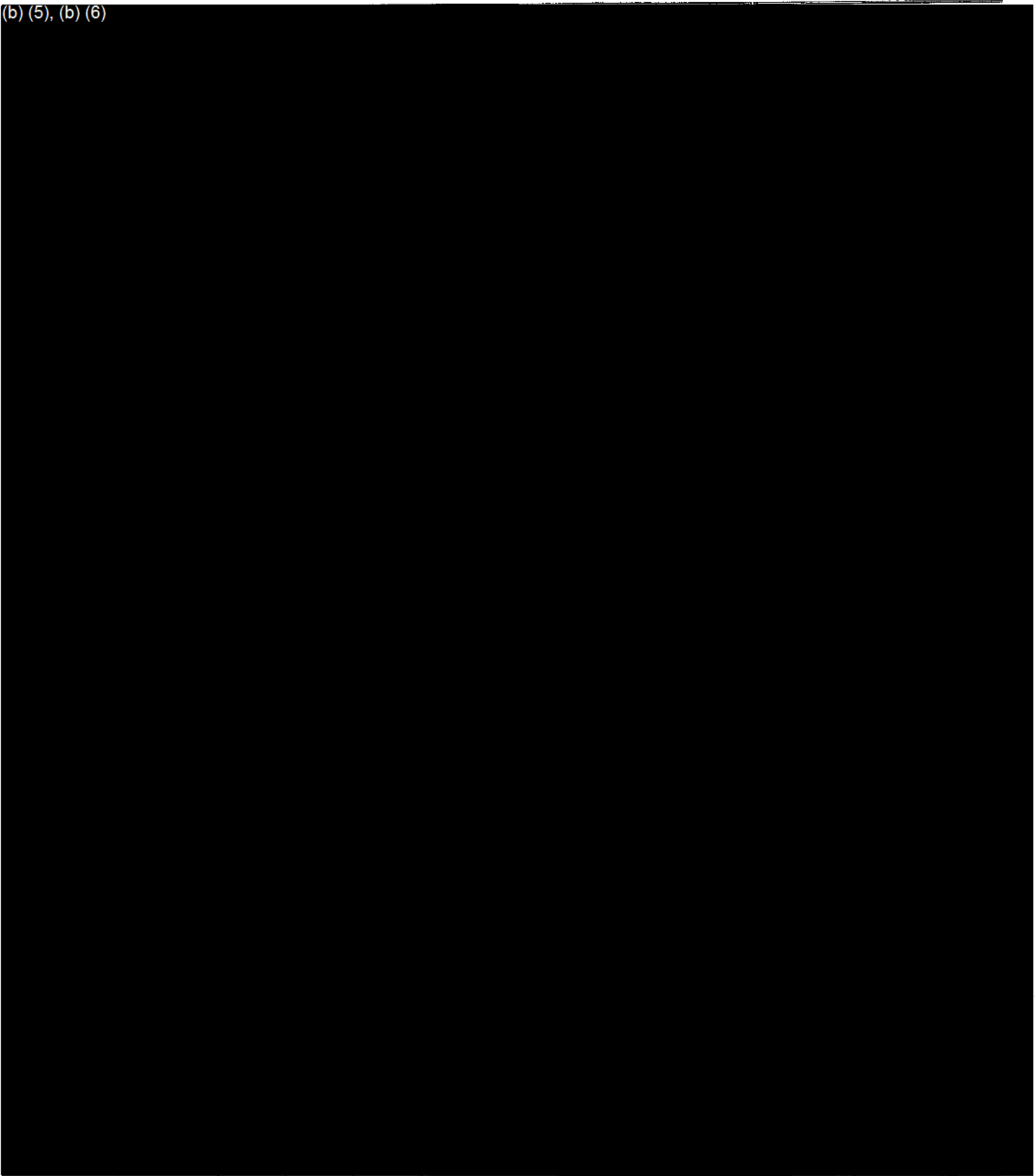
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SHIP'S DECK LOG SHEET

IF CLASSIFIED STAMP
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(b) (5), (b) (6)



IF CLASSIFIED STAMP
SECURITY MARKING HERE

DEPARTMENT OF THE NAVY
VOLUNTARY STATEMENT

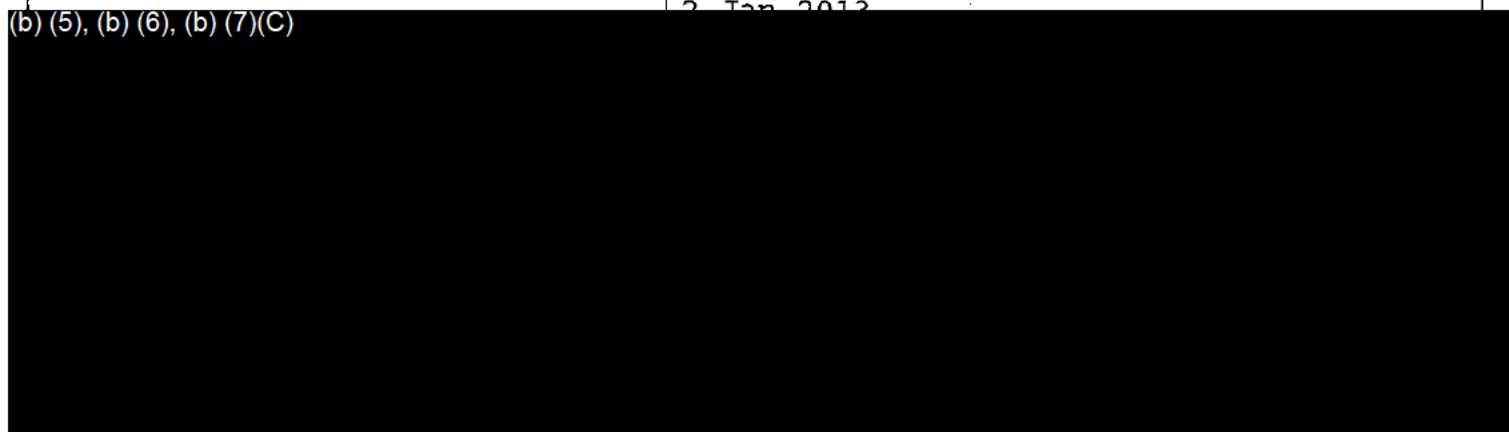
1. Place

USS BRADLEY (FFG 49)

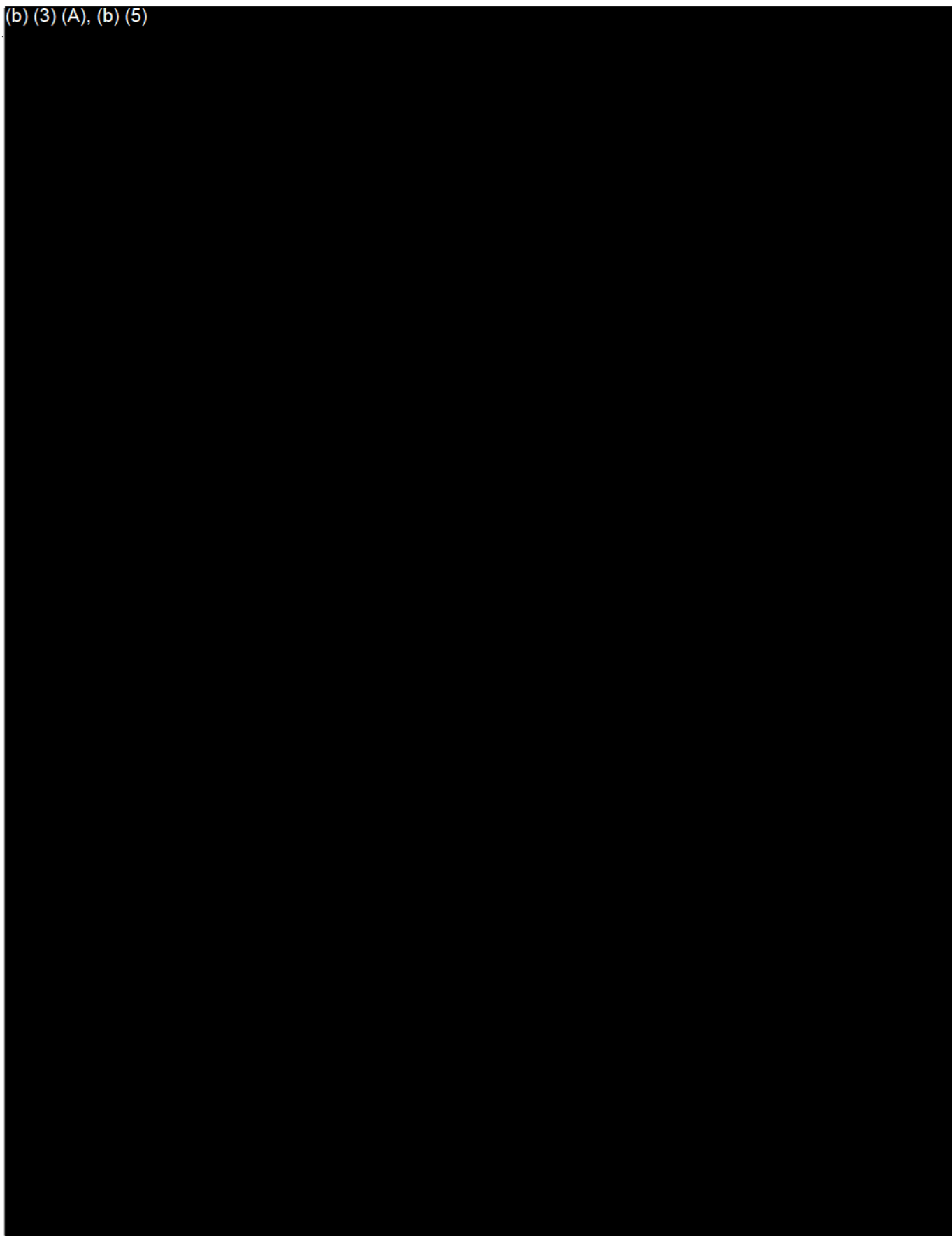
2. Date

2 Jan 2012

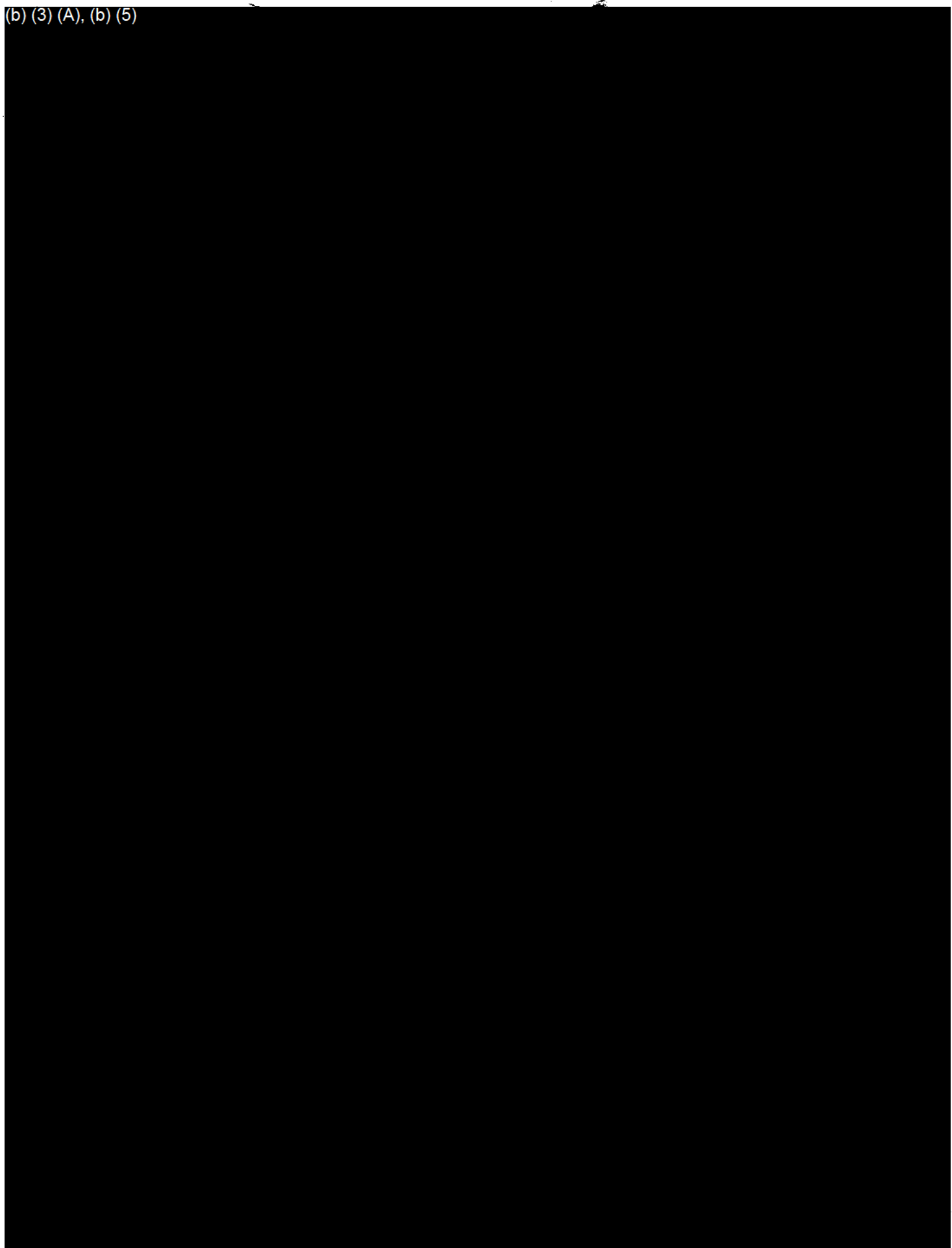
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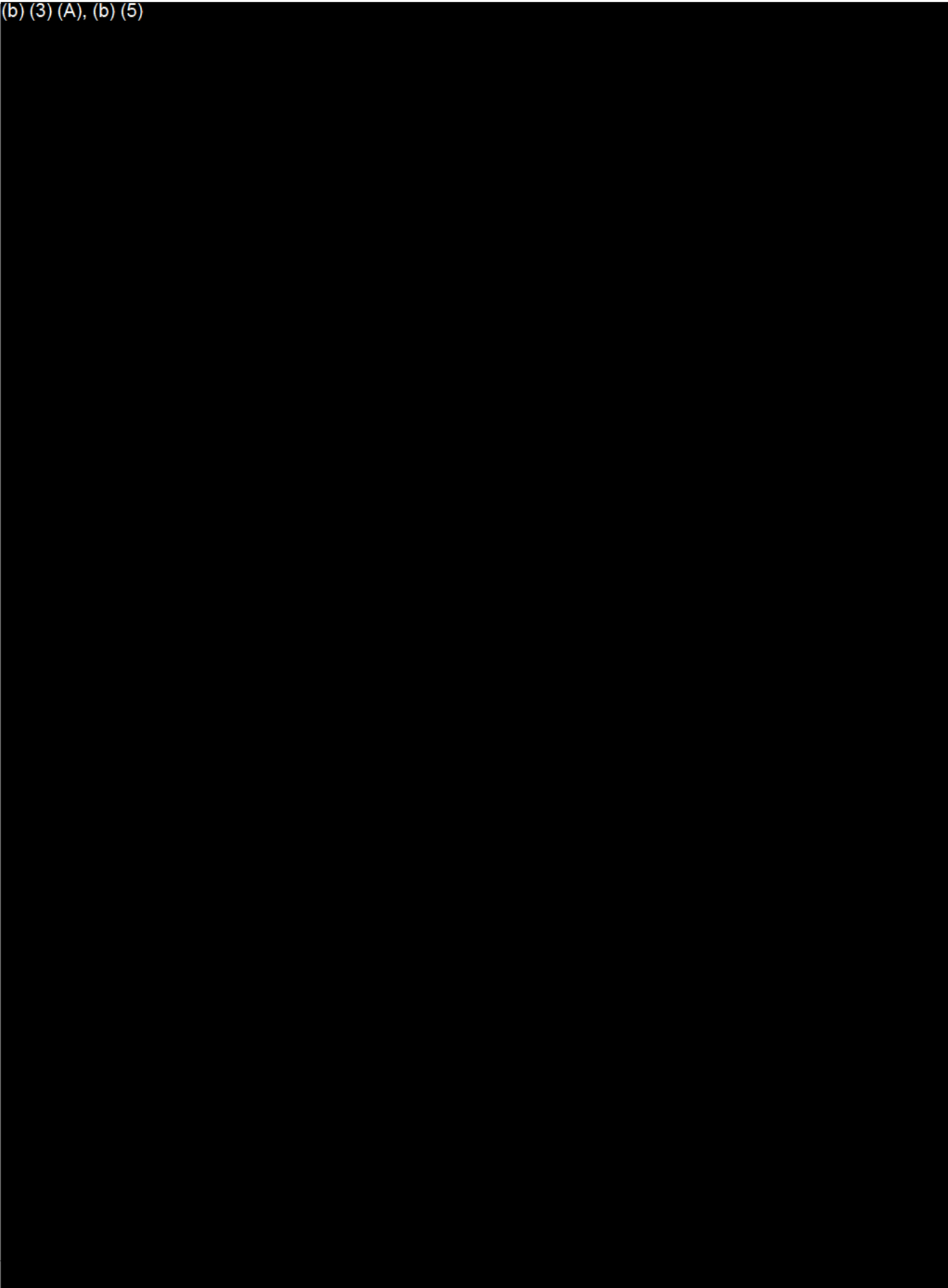
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(b) (3) (A), (b) (5)

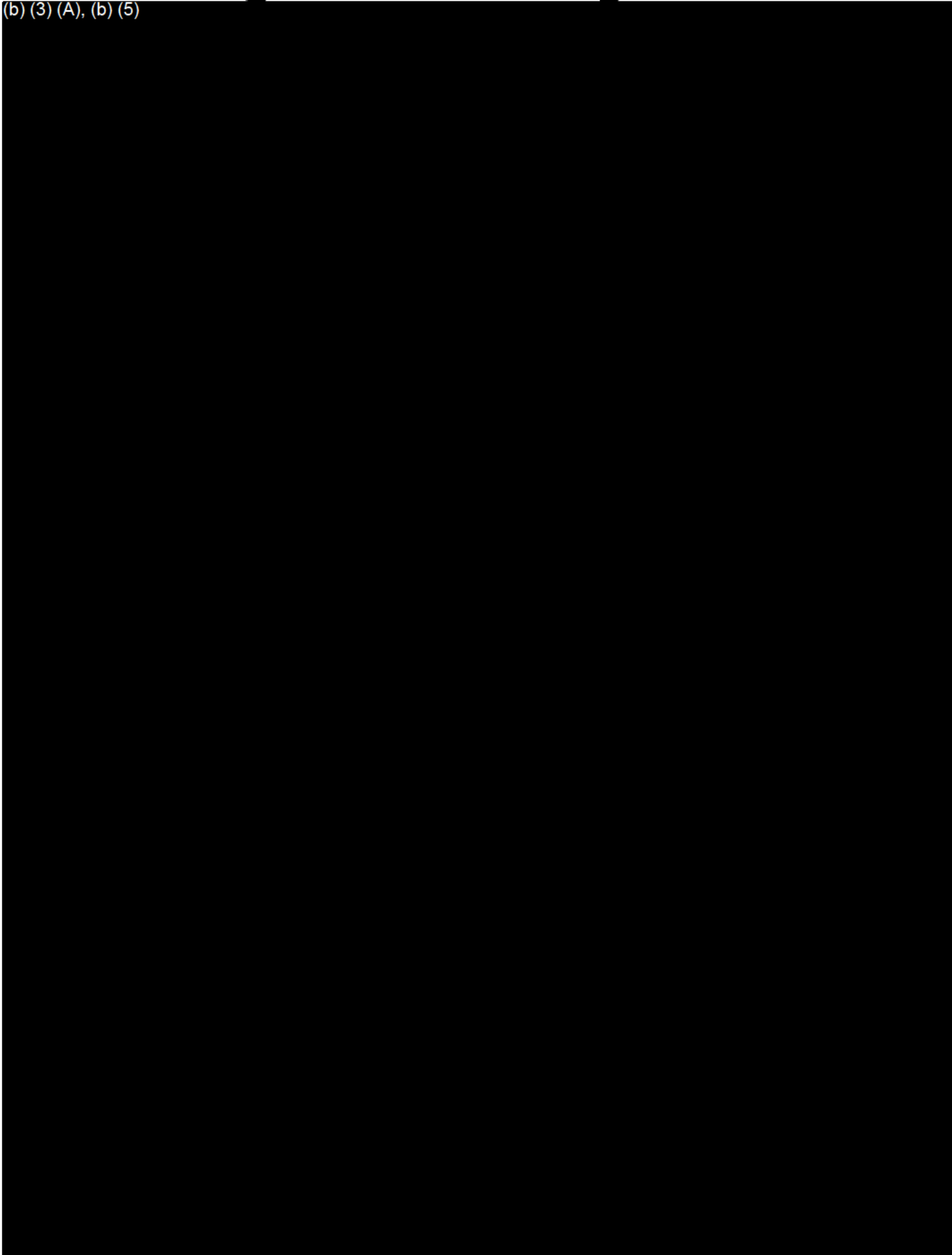


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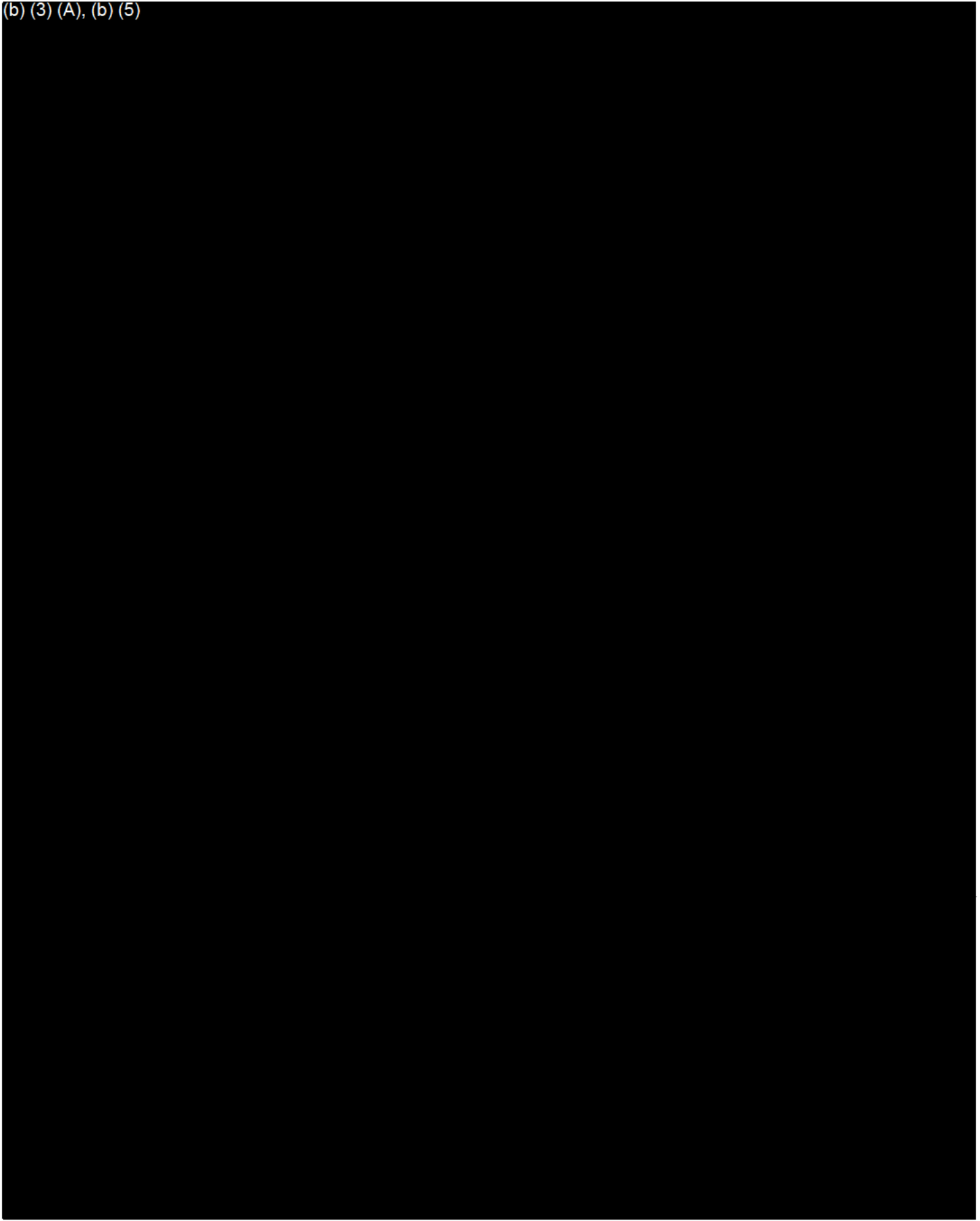


Encl (37)

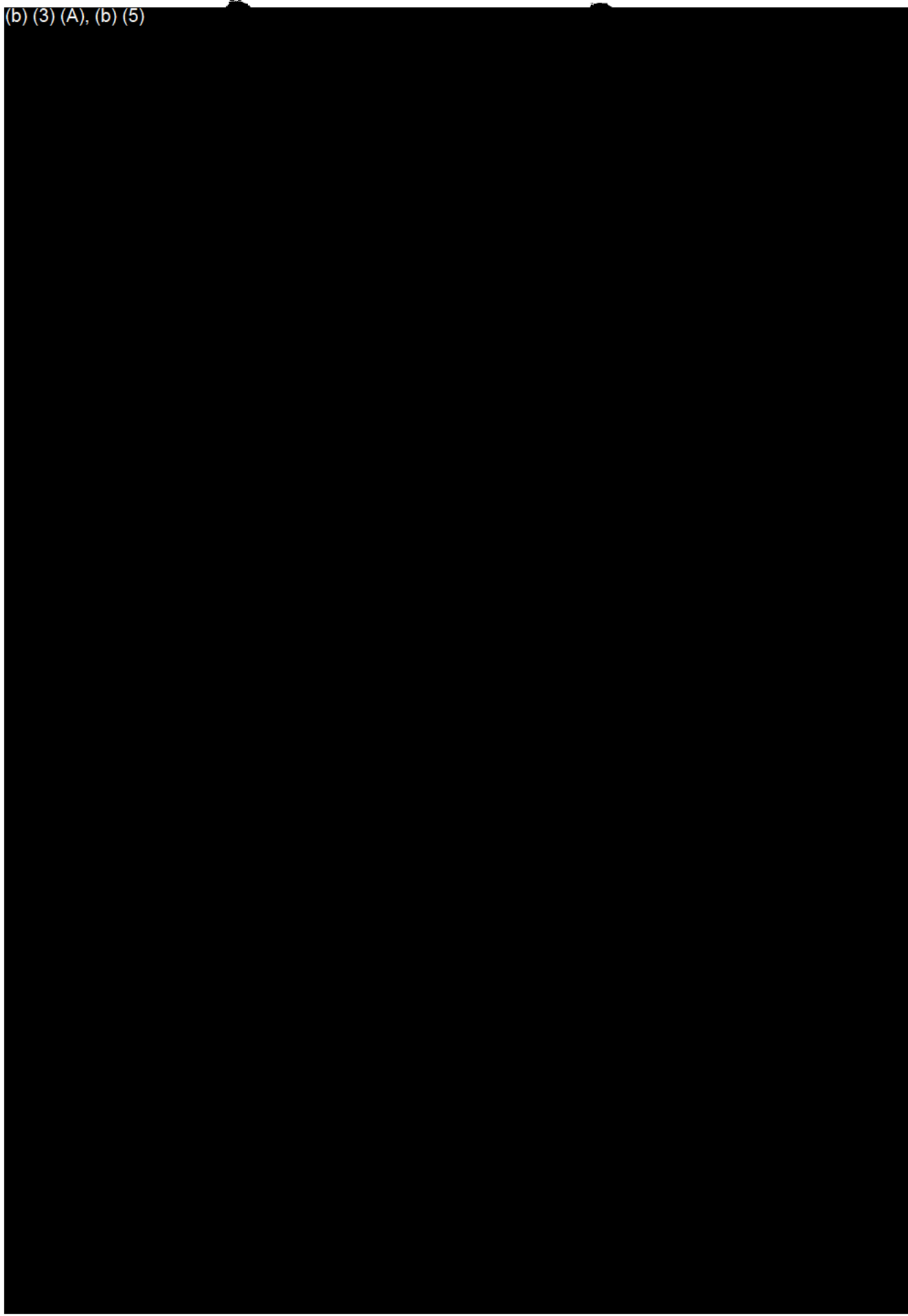
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(b) (3) (A), (b) (5)



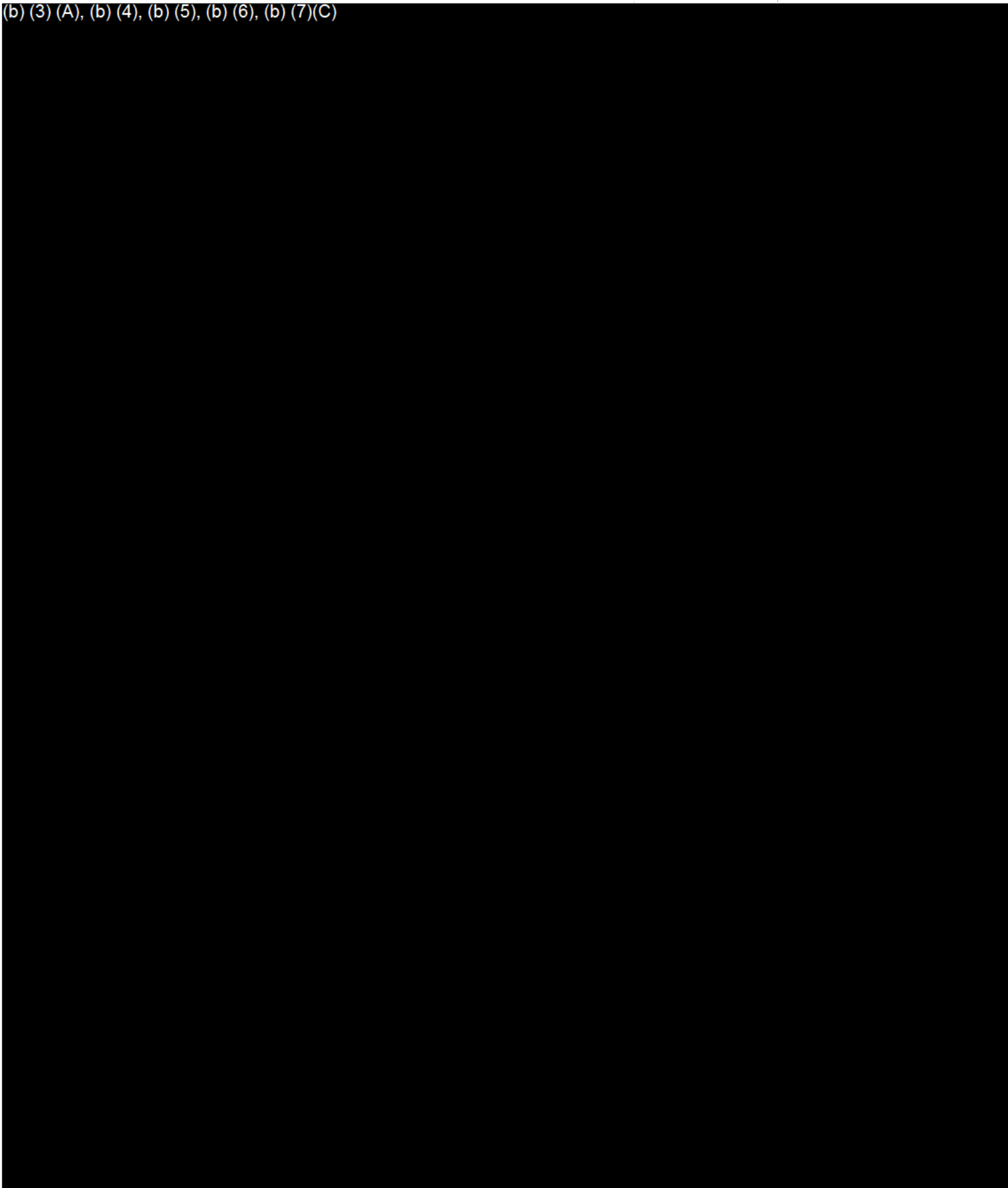
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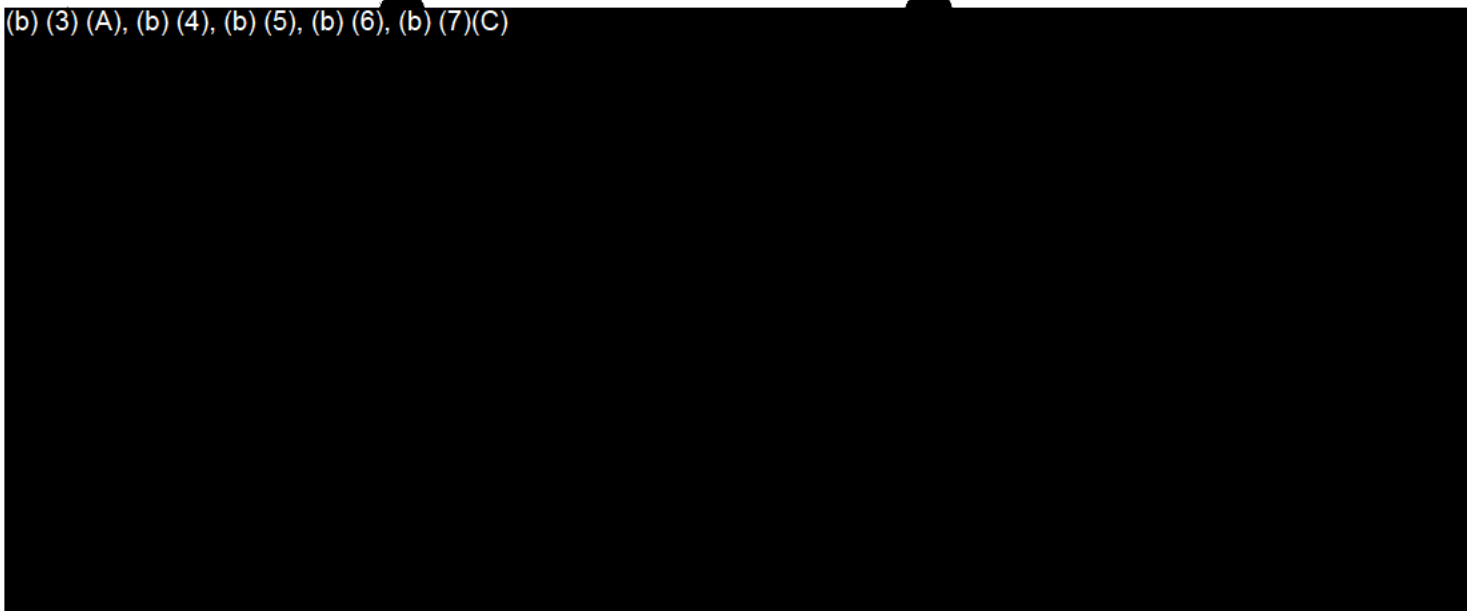
(b) (5), (b) (6), (b) (7)(C)

NAVAIR, PMA-266

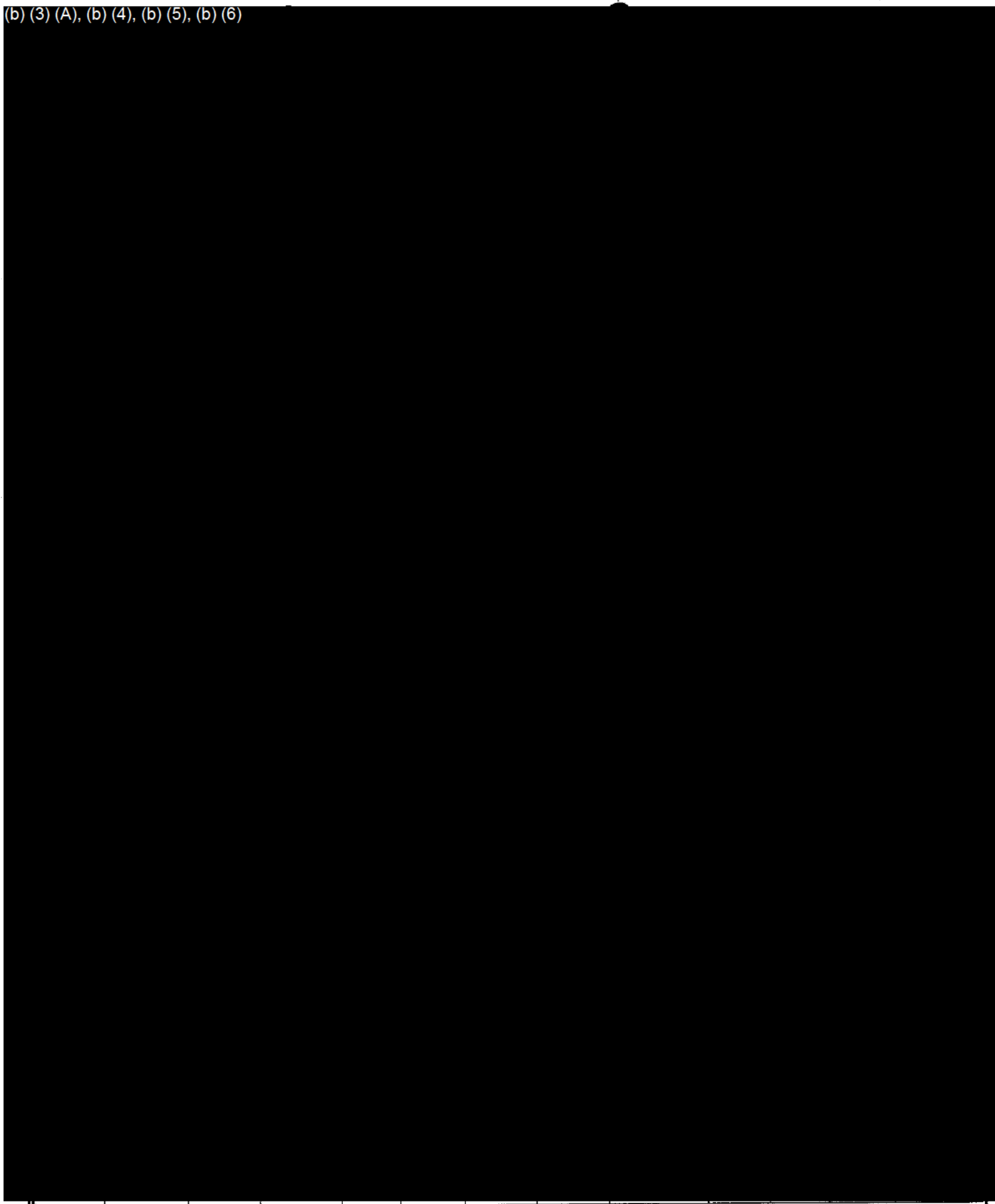
(b) (3) (A), (b) (4), (b) (5), (b) (6), (b) (7)(C)



(b) (3) (A), (b) (4), (b) (5), (b) (6), (b) (7)(C)



(b) (3) (A), (b) (4), (b) (5), (b) (6)



ENCLOSURE ()

(b) (3) (A), (b) (4), (b) (5), (b) (6)