

Department of Defense Armed Forces Health Surveillance Center West Africa Ebola Surveillance Summary (25 JUN 2015)



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DEPARTMENT OF DEFENSE (AFHSC)

West Africa Ebola Surveillance Summary #105

25 JUN 2015 (next report 2 JUL 2015)



CASE REPORT: Since the previous summary (18 JUN), there has been an increase of 28 confirmed and 121 suspected and/or probable Ebola virus disease (EVD) cases, (+47 total deaths), bringing the total to 27,491 cases (11,232 deaths). Only Guinea and Sierra Leone reported new confirmed cases during this time period. The total case count includes cases and deaths from Liberia, Italy, Senegal, Nigeria, the United States, Spain, Mali, and the United Kingdom.

According to WHO for the week ending 24 JUN, Guinea reported 12 new confirmed cases; up from 10 in the prior week. Only 6 of the 12 cases reported were registered contacts. The cases were reported from the prefectures Boke, Conakry, Dubreka, and Forecariah. Areas of ongoing transmission within these four prefectures have expanded. Compared to Guinea, geographic areas of transmission in Sierra Leone have been confined to several chiefdoms over the past three weeks. However, for the first time in over two weeks, cases were reported in Freetown, Western Area Urban. Sierra Leone reported 8 confirmed cases in the week ending 21 JUN; down from 14 cases in the prior week. Four of the eight cases were registered contacts of a previous case. One of these four registered contacts, plus three additional cases are associated with a large number of high risk contacts. Three districts reported cases: Port Loko, Kambia, and Western Area Urban. Sierra Leone has lifted some of its curfew and EVD quarantine procedures for all districts except Port Loko and Kambia in order to stimulate economic recovery.

WHO declared Liberia EVD free on 9 MAY 2015, as 42 days have passed since the burial of the last confirmed case.

On 10 APR 2015, WHO's fifth Emergency Committee meeting on the 2014 EVD outbreak unanimously agreed that the outbreak continues to constitute a Public Health Emergency of International Concern (PHEIC) and that all previous temporary recommendations remain in effect with some additional advice.

DoD SURVEILLANCE GUIDELINES: On 31 OCT 2014, the Under Secretary of Defense for Personnel and Readiness (USD(P&R)) issued a memorandum providing guidance for training, screening, and monitoring for DoD personnel deployed to Ebola outbreak areas. The USD(P&R) also published electronic versions of the Ebola risk evaluation form (DD2990) and redeployment risk assessment form (DD2991). On 28 MAY 2015, the Armed Forces Health Surveillance Center published updated guidelines for the detection and reporting of DoD cases of EVD.

MEDICAL COUNTERMEASURES There are no approved vaccines or specific treatments for EVD. On 9 DEC 2014, HHS offered liability protections to drug makers developing Ebola vaccines. A comparison of the six Ebola vaccines being actively tested can be found on page 4 of this report, along with the current pharmaceutical treatments. Testing of ChAd3-EBOZ has expanded to Uganda and Nigeria according to the Walter Reed Army Institute of Research. The PREVAIL vaccine trials completed phase II in Liberia on 30 APR. As of 24 JUN, the STRIVE vaccine trial is being administered in areas of ongoing transmission in Port Loko and Western Area Urban, Sierra Leone. On 12 MAY, WHO Assistant Director-General for Health Systems and Innovation, Dr. Kienny, said it would be difficult to prove the efficacy of the two vaccines (rVSV-ZEBOV and ChAd3-EBO Z) due to a low number of EVD positive cases. A new article in Science Translational Medicine describes a drug screen performed in the quest to identify currently approved drugs with anti-Ebola activity. Chinese drug MIL77, used on the recent EVD case in Italy and the U.K., is a near copy of the drug ZMapp. The Chinese medical company which produces MIL77, Beijing Mabworks, stated they have a licensing agreement with the intellectual property right holder for ZMapp. NIH will start a clinical trial of Zmapp in Coyah and Forecariah, Guinea during July 2015.

Links to Additional Sections of this Report

| | | |
|---|--|---|
| DoD, USG and Global Response & Travel Advisories | Latest Case Counts | Medical Countermeasures in Development |
| New Cases (Last 21 days) by Admin Area (map) | New Confirmed Cases with Trend Line | Additional Resources |

Text updated from the previous report will be printed in red; items in (+xx) represent the change in number from the previous AFHSC summary (18 JUN 2015).

All information has been verified unless noted otherwise. Sources include WHO, CDC, and health agencies in Guinea, Liberia, and Sierra Leone.



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DoD RESPONSE: As of 11 JUN, the 48th Chemical, Biological, Radiological, and Nuclear Brigade [completed their mission](#) as the joint forces' headquarters element providing oversight duties in Liberia. No DoD personnel are currently deployed in West Africa for the Ebola response; support efforts have [fully transitioned](#) to USAID, NIH and CDC personnel. On 30 APR, the Monrovia Medical Unit was formally closed by the Liberian government.

On 8 JAN 2015, SECDEF signed a memo delegating authority to use DoD aircraft to transport Ebola symptomatic or exposed DoD personnel. On 17 DEC 2014, the CJCS issued an updated [CJCSI 4220.01A](#), implementing SECDEF's 21-day controlled monitoring policy. As of 18 MAY, [controlled monitoring is not required for DoD personnel returning from Liberia; as it is no longer an area of widespread EVD transmission and it has passed the 42 days since its last confirmed case](#). On 7 NOV 2014, [DoD issued guidance](#) on medical care of DoD civilians deployed to Ebola outbreak areas.

FDA has issued [Emergency Use Authorizations \(EUA\)](#) for several in vitro diagnostics for detection of Ebola virus. Under the EUAs, the DoD EZ1 real time RT-PCR Ebola Zaire virus detection assay developed by USAMRIID is approved for human diagnostic testing at the following DoD labs: USAMRIID, Landstuhl RMC, NIDDL at NMRC, NHRC, NAMRU-3, NAMRU-6, William Beaumont AMC, Carl R. Darnall AMC, Madigan AMC, Tripler AMC, and SAAMC. In Liberia, the Navy's mobile lab and the USAMRIID-supported Liberian Institute for Biological Research in Monrovia are qualified to perform Ebola diagnostic testing on U.S. personnel. Joint Base Langley-Eustis, Carl R. Darnall AMC, Wright-Patterson MC, WRNMMC, SAAMC, Madigan AMC, Womack AMC, Landstuhl RMC, Eisenhower AMC, and NIDDL have been approved as BioFire FilmArray NGDS BT-E Assay testing sites. The Corgenix ReEBOV Rapid Antigen Test was the most recent assay approved under the EUA on 24 FEB. As of 24 MAR, Cepheid [announced](#) that it received an EUA from the Food and Drug Administration for its Xpert Ebola molecular diagnostic test that gives results within two hours; it requires the use of Cepheid's GeneXpert bench top system.

USG AND GLOBAL RESPONSE: Current information and guidance is available at the [CDC](#) and [WHO](#) Ebola web sites. As of 13 MAY, CDC changed Liberia's [country classification](#) to "country with former widespread EVD transmission and current, established control measures". The UN Mission for Ebola Emergency Response (UNMEER) will be [closing](#) its Ebola response headquarters in Accra, Ghana at the end of JUN 2015. [On 19 JUN, CDC released HAN 00381, 'Clinical Considerations for the Evaluation of Ill Travelers from Liberia to the United States' in order to advise medical personnel of important diseases, other than Ebola, for these travelers. Additional resources for assessing patients and discharging persons under investigation can be found on CDC's website for U.S. healthcare workers.](#)

TRAVEL ADVISORY: The CDC is maintaining its [Warning - Level 3, Avoid Nonessential Travel](#) advisory for Guinea and Sierra Leone. On 4 MAY, Liberia's travel advisory was reduced to a [Warning - Level 2, Practice Enhanced Precautions](#) since there are presently no known cases of Ebola in Liberia. [All flights carrying travelers from the affected West African nations](#) must enter the U.S. through one of the five designated airports that are conducting enhanced screening for EVD (JFK, Newark Liberty, Washington Dulles, Chicago O'Hare, and Atlanta Hartsfield-Jackson). U.S. military aircraft do not need to be re-routed to one of these airports, provided that Customs and Border Protections has been assured that the established DoD screening protocols will take place at the arrival location. On 28 OCT 2014, the CDC recommended that state public health departments [implement active post-arrival monitoring for 21 days](#) along with other movement restrictions based on a traveler's exposure risk category using CDC definitions. As of 17 JUN, this restriction only applies to passengers from Sierra Leone or Guinea. The CDC has [relaxed screening procedures](#) for passengers traveling from Liberia to the United States; for these travelers, airport temperature checks and the requirement for active monitoring were immediately discontinued. Personal health check kits (CARE kits) are still being distributed to these travelers.

Text updated from the previous report will be printed in red; items in (+xx) represent the change in number from the previous AFHSC summary (11 JUN 2015).

All information has been verified unless noted otherwise. Sources include DoD, White House Press Office, WHO, CDC, and USAID DART team.



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Latest Available Ebola Case Counts in or Related to West Africa, 2014-2015

| Country (as of date) | EVD Cases All / Lab Confirmed | Deaths All / Lab Confirmed | EVD Cases in HCW / Deaths | Contacts Being Followed |
|-------------------------|-------------------------------------|------------------------------------|------------------------------|-------------------------------|
| Guinea (24 JUN) | 3,718 (+43) / 3,264 (+18) | 2,480 (+35) / 2,037 (+11) | 189 (+2) / 94 | 2,040 |
| Sierra Leone (23 JUN) | 13,071 (+106) / 8,659 (+10) | 3,931 (+12) / 3,565 (+12) | 305 (+1) / 221 | 1,153 |
| Liberia (17 MAY) | 10,666 / 3,151 | 4,806 / NA | 378 / 192 | 0 |
| Italy (10 JUN) | 1 / 1*** | 0 / 0 | 1 / 0*** | 0 |
| United Kingdom (22 JAN) | 1 / 1*** | 0 / 0 | 1 / 0*** | 0 |
| United States (4 DEC) | 4 / 4* ** | 1 / 1 | 3 / 0 | 0 |
| Mali (21 DEC) | 8 / 7 | 6 / 5 | 2 / 2 | 0 |
| Nigeria (17 SEP) | 20 / 19 | 8 / 7 | 11 / 5 | 0 |
| Senegal (20 SEP) | 1 / 1* | 0 / 0 | 0 / 0 | 0 |
| Spain (2 DEC) | 1 / 1 | 0 / 0 | 1 / 0 | 0 |
| Total | 27,491 (+149) / 15,108 (+28) | 11,232 (+47) / 5,615 (+23)† | 891 (+3) / 514 | 3,193 |

Case Fatality Proportion: In its 24 JUN Situation Report WHO said the case fatality proportion in the two intense-transmission countries among cases for whom a definitive outcome is recorded is between 46% and 64%. †Excluding Liberia / *Imported from Liberia / **1 imported from Guinea / ***Imported from Sierra Leone / NA = Not Available

Shaded rows represent countries which have been declared Ebola transmission-free by WHO.

The total number of cases is subject to change due to reclassification, retrospective investigation, consolidation of cases and laboratory data, and enhanced surveillance.

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Ebola Medical Countermeasures In Development, 2014-2015

| Name | Type | Company | Testing Location | FDA Status |
|--|-----------|---|--|-------------------------------------|
| ChAd3-EBO Z | Vaccine | GlaxoSmithKline partnered with NIAID | Liberia , Guinea, Uganda , Nigeria, Sierra Leone , Ghana , Mali, Senegal, Cameroun | Phase 2/3 |
| rVSV-ZEBOV | Vaccine | Public Health Agency Canada/ Newlink Genetics Corp partnered with Merck | Liberia , Guinea , Sierra Leone , Kenya | Phase 2/3 |
| Ebola Ad26, MVA-BN-filo | Vaccine | Johnson & Johnson with Bavarian Nordic A/S | Britain | Phase 2 |
| Ebola GP Vaccine | Vaccine | Novavax, Inc. | Australia | Phase 1 |
| MVA Ebola Zaire Vaccine | Vaccine | Oxford University, GlaxoSmithKline, Emergent BioSolutions | Britain | Phase 1 (new study) |
| Ad5-EBOV , Zaire Ebola 2014 strain | Vaccine | Beijing Institute of Biotechnology, Jiangsu Province CDCP | China | Phase 1 |
| rVSV-ZEBOV (second generation rVSV-ZEBOV) | Vaccine | University of Texas- Galveston and Profectus Biosciences | United States | Animal testing |
| Favipiravir | Drug | Toyama Chemical | Guinea | Phase 2 |
| Brincidofovir | Drug | Chimerix, Inc. | Liberia | Halted/ cancelled |
| ZMapp | Drug | Mapp Pharmaceuticals | Liberia , Sierra Leone , Guinea (pending approval) | Phase 2 |
| TKM-Ebola-Guinea | Drug | Tekmira Pharmaceuticals | Guinea, Sierra Leone | Phase 2 (halted) |
| BCX4430 | Drug | BioCryst Pharmaceuticals partnered with NIH, HHS | United States | Phase 1 |
| MIL77 | Drug | Beijing Mabworks | United Kingdom , Italy | NA |
| Convalescent Plasma Therapy | Procedure | ClinicalRM with multiple partners | Liberia, Guinea, Sierra Leone | Phase 1/2 |

All information has been verified unless noted otherwise. Sources include WHO, NIAID, CDC, FDA, NIH, and open source news.



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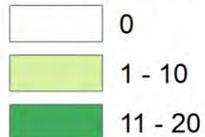
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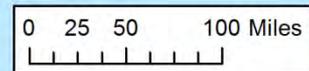
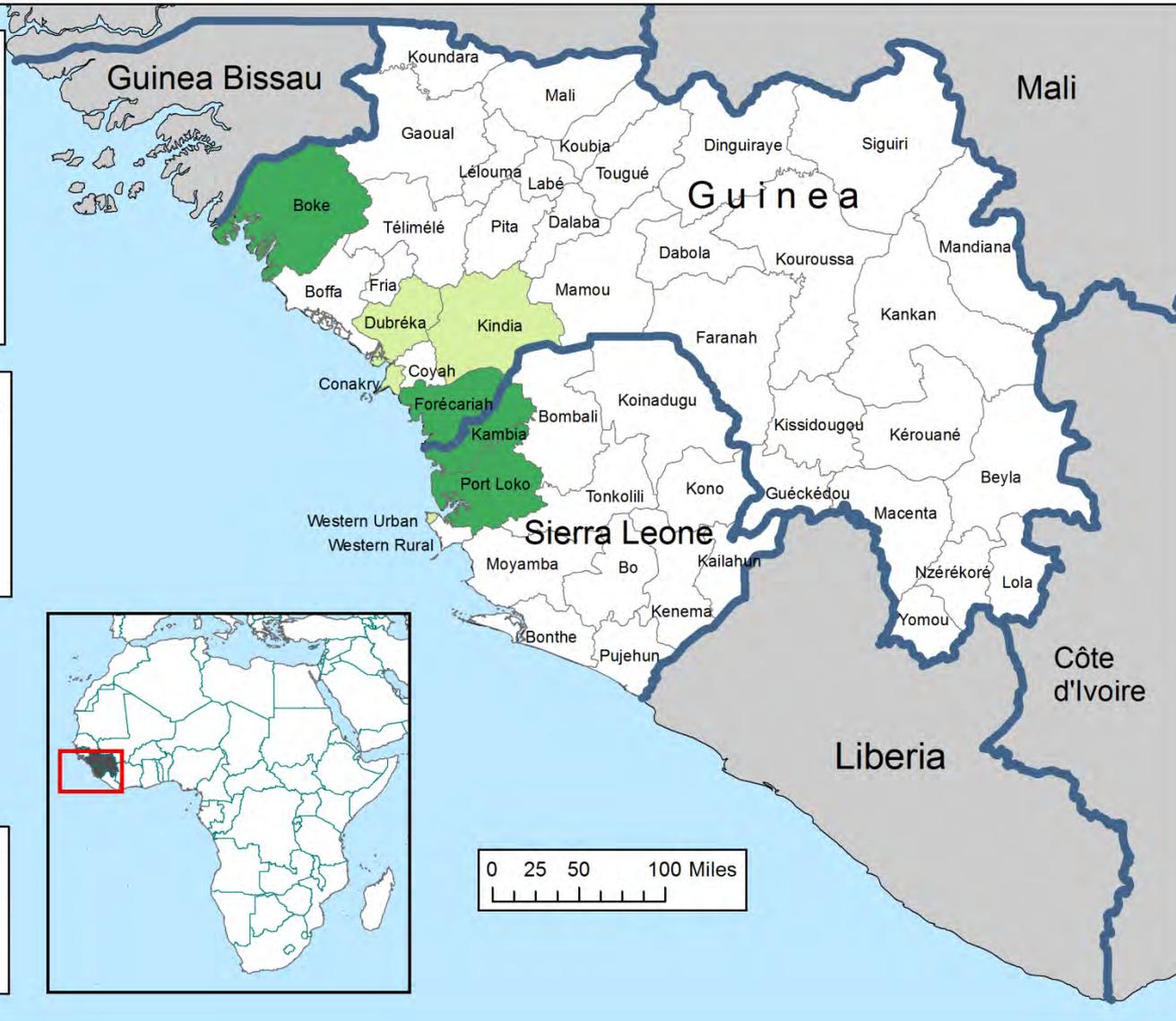


New confirmed Ebola virus disease cases by district in West Africa, during the most recently reported three-week period

New Confirmed Cases



As of dates:
 Guinea, 3 JUN - 24 JUN
 Sierra Leone, 2 JUN - 23 JUN
 Liberia, EVD free 9 MAY



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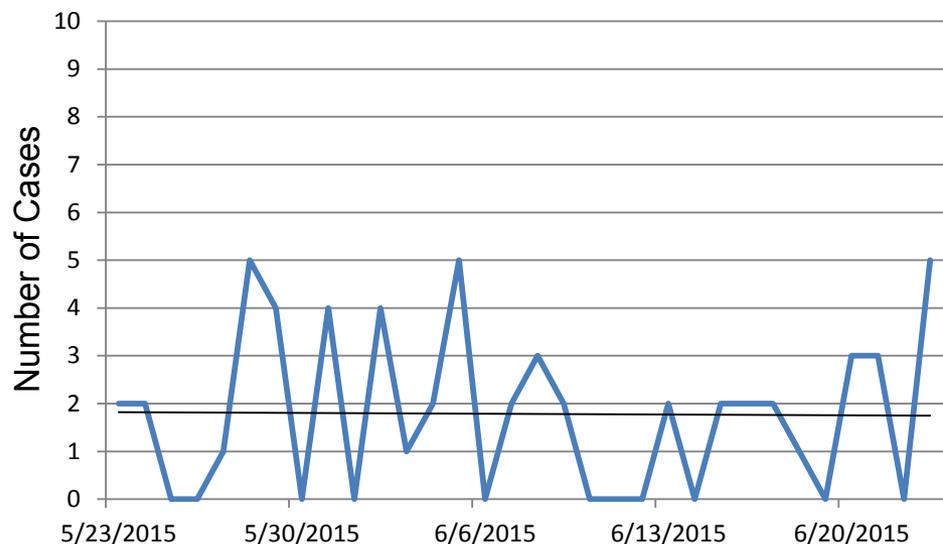
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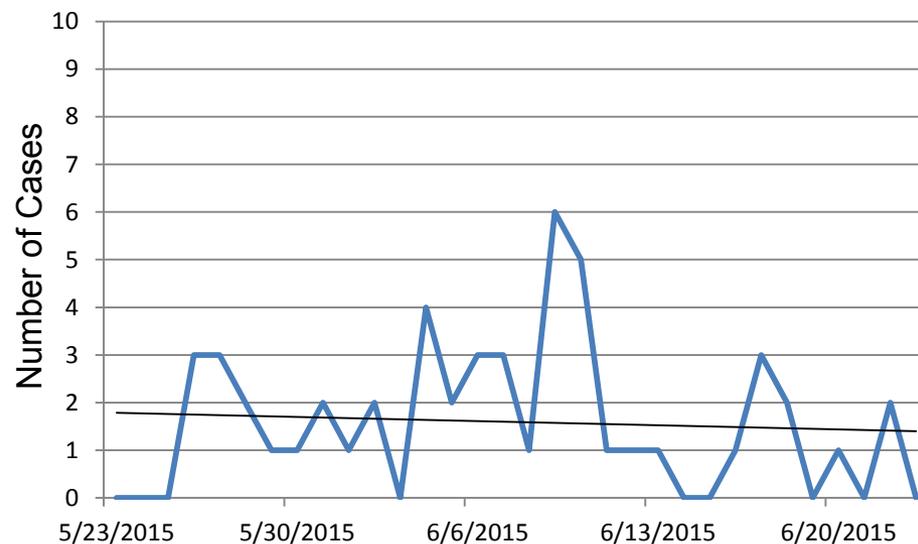


Daily Reported Confirmed EVD Cases with Trend Line for Guinea and Sierra Leone as of 23 JUN 2015 for the Previous Month

Guinea



Sierra Leone



All information has been verified unless noted otherwise. Sources include WHO, and the Guinea, and Sierra Leone Ministries of Health.



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Additional Resources and Media Reports

Ebola Web Sites

- [WHO](#)
- [WHO \(Africa\)](#)
- [CDC](#)
- [UNMEER Sit Reps](#)
- [Liberia MOH](#)
- [Sierra Leone MOH](#)
- [Humanitarian Response \(West Africa\)](#)
Access to MOH, WHO, UN, and other reports
- [AFHSC Guidelines for Detecting and Reporting DoD Cases of Ebola Virus](#)
- [USAMRIID](#)
- [State Department Travel Site](#)
- [USAID Ebola Site](#)
- [DoD News](#)
- [DoD Operation United Assistance Web Portal](#)
- [AFRICOM Operation United Assistance Web Portal](#)

Information and News

- [Malaria killed more people than usual in Ebola outbreak](#) (AP, 23 JUN)
- [Ebola returns to Sierra Leone capital after three-week gap](#) (Reuters, 22 JUN)
- [Clinical trial of experimental Ebola drug is halted](#) (NY Times, 19 JUN)
- [Liberia: New disease control center to develop Ebola response model](#) (AllAfrica, 18 JUN)
- [Temporal and spatial analysis of the 2014-2015 Ebola virus outbreak in West Africa](#) (Nature, 17 JUN)
- [Ebola vaccines in limbo expose need for more speed in trials](#) (Reuters, 17 JUN)
- [Study finds Ebola virus mutated slower than first thought](#) (Reuters, 17 JUN)
- [Sierra Leone imposes Ebola curfew for northern districts](#) (NY Times, 12 JUN)
- [Monitoring of Ebola virus Makona evolution through establishment of advanced genomic capability in Liberia](#) (Emerging Infectious Diseases, 12 JUN)
- [Ghana halts Ebola vaccine trial due to community protests](#) (Reuters, 10 JUN)
- [A screen of approved drugs and molecular probes identifies therapeutics with anti-Ebola virus activity](#) (Science Translational Medicine, 3 JUN)
- [Scientists release Ebola sequencing data to global research community online](#) (BusinessWire, 3 JUN)