



United States Army Public Health Command  
**Army Vector-borne Disease Report**

05 September 2013

Data are preliminary and subject to change

- **West Nile virus:** CDC reports 497 human cases including 20 deaths for calendar year 2013; Army reports one confirmed/probable case, none resulting in death.
- **WNV mosquito pools:** PHCR-North has reported 13 new positive mosquito pools; PHCR-South has reported five new positive pools.
- **Human Tick Test Program:** 23% of all ticks tested for *Borrelia burgdorferi*, the causative agent of Lyme disease, were positive.

**West Nile Virus (WNV)**

**United States**

- Since the last published report, 201 additional human WNV cases have been reported to the CDC, including nine deaths.
- About half of all cases (51%, n=253) are classified as non-neuroinvasive.
- As of 03 September, 45 states (an increase of two since the last report) and Washington, D.C. report WNV activity of some type (infections in humans, birds, or mosquitoes).
- 36 states report WNV human infections. California, Colorado and South Dakota report the highest number of cases with 100, 72 and 71 cases, respectively; these three states account for 49% of all cases.

West Nile Virus Activity by State – United States, 2013 (as of September 04, 2013)



**Cases in Army AD and Other Beneficiaries**

- Since the last published report, one confirmed WNV infection in Army AD was reported from Fort Hood, TX.
- Two additional individuals with WNV-related diagnoses were identified in purchased care records; however, as the case statuses cannot be confirmed, they are excluded from this report.
- No WNV fatalities have been reported among Army beneficiaries this year.

West Nile Virus Activity, by State and Army Public Health Command Region (PHCR), United States, 2013 (As of September 5, 2013)



**DoD Mosquito Surveillance from Army Laboratories**

- PHCR-North reports 13 positive pools in the greater DC metropolitan area.
- PHCR-South reports 5 positive pools from Fort Sill, OK.
- PHCR-West reports no positive pools.

Mosquito Pool Testing	PHC Region	Reporting Period <sup>‡</sup>		Year to Date 2013	
		No. Positive (No. Tested)	No. Positive (No. Tested)	No. Positive (No. Tested)	No. Positive (No. Tested)
	North	13 (95)		27 (399)	
	South	5 (163)		7 (905)	
	West	0 (33)		0 (112)	

<sup>‡</sup> Absolute difference between last published report and this week's year to date number.

WNV Human Cases <sup>β</sup>		
Population	Reporting Period <sup>‡</sup>	Cum. 2013
United States	201	497
Army Cases <sup>±</sup> Confirmed and Probable		
Army AD <sup>‡</sup>	1	1
Army Non-AD <sup>†</sup>	0	0
WNV Human Deaths		
United States	9	20
Army	0	0

Sources: CDC and AIPH DRSI as of 03 September 2013.

Note: Reporting location may differ from exposure location.

<sup>β</sup> Confirmed and probable neuroinvasive and non-neuroinvasive cases.  
<sup>‡</sup> Difference between last published report and this week's cumulative 2013 value.

<sup>±</sup> Only Army AD and beneficiaries who have a Reportable Medical Event generated on their behalf and whose case status is verified as confirmed/probable are included in this report.

<sup>†</sup> Active duty, recruits, cadets.  
<sup>‡</sup> Army-associated beneficiaries.

**Prevention and Control Activities**

- WNV activity, although rising, remains below levels reported this time period last year.
- Preventive Medicine personnel should continue to stress the importance of eliminating mosquito breeding sites (standing water) around homes and workplaces, and using personal protective measures (preferably those containing DEET).

**Tick-borne Diseases**

**Human Tick Test Program**

- The DOD Human Tick Test Program is a free service for military health care providers that tests for pathogens in ticks removed from patients. Tick testing is species-specific; different tick species transmit different pathogens. Contact information can be found [here](#).
- To date, 3% (13/416) of ticks submitted to the CONUS Tick Test Program were positive for *Anaplasma phagocytophilum*, the agent of anaplasmosis. 2% (11/416) of ticks were positive for *Babesia microti*, the agent of Babesiosis. 23% (95/416) were positive for *Borrelia burgdorferi*, the agent of Lyme disease. Less than 2% of ticks tested positive for *Ehrlichia chaffeensis*, *E. ewingii* and *E. muris-like*, all agents for variations of Ehrlichiosis, and 33% (3/9) were positive for *Rickettsia parkerii*, the agent of Tidewater spotted fever.
- No ticks from CONUS have tested positive for the pathogen known to cause Rocky Mountain spotted fever, *R. rickettsii*.
- To date, PHCR-Europe has identified 6 of 119 (5%) ticks as positive for *Borrelia* spp. All ticks were submitted from Hohenfels, Germany.

Human Tick Test Program	A. <i>phagocytophilum</i>	B. <i>microti</i>	B. <i>burgdorferi</i>	E. <i>chaffeensis</i>	E. <i>ewingii</i>	E. <i>muris-like</i>	R. <i>parkerii</i>	R. <i>rickettsii</i>
YTD No. Positive (YTD No. Tested)	13 (416)	11 (416)	95 (416)	16 (1521)	24 (1521)	1 (416)	3 (9)	0 (504)

Note: CONUS data only.

**Tick Bite Prevention**

- When spending time outdoors, wear permethrin treated clothing and use mosquito repellants with 20-30% DEET on exposed skin.
- Once indoors, bathe or shower as soon as possible to wash off any loose ticks.
- Use the buddy system to check for ticks. Pay special attention to people's hair, ears, belly buttons, waistlines, behind the knees and between the legs.
- Also check pets and gear for ticks.
- For information on tick bite prevention using Permethrin Factory Treated Army Combat Uniforms click [here](#).

**Resources:** CDC WNV • CDC Tickborne Diseases • Human Tick Test Program • USAPHC WNV Fact Sheet • Army Vector-borne Disease Reports • USAPHC

**Key:** CDC Centers for Disease Control and Prevention; DRSI Disease Reporting System Internet; Mosquito pool 1 to 50 mosquitoes; AD Active Duty

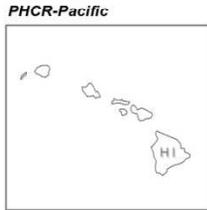
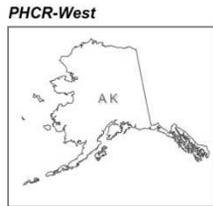
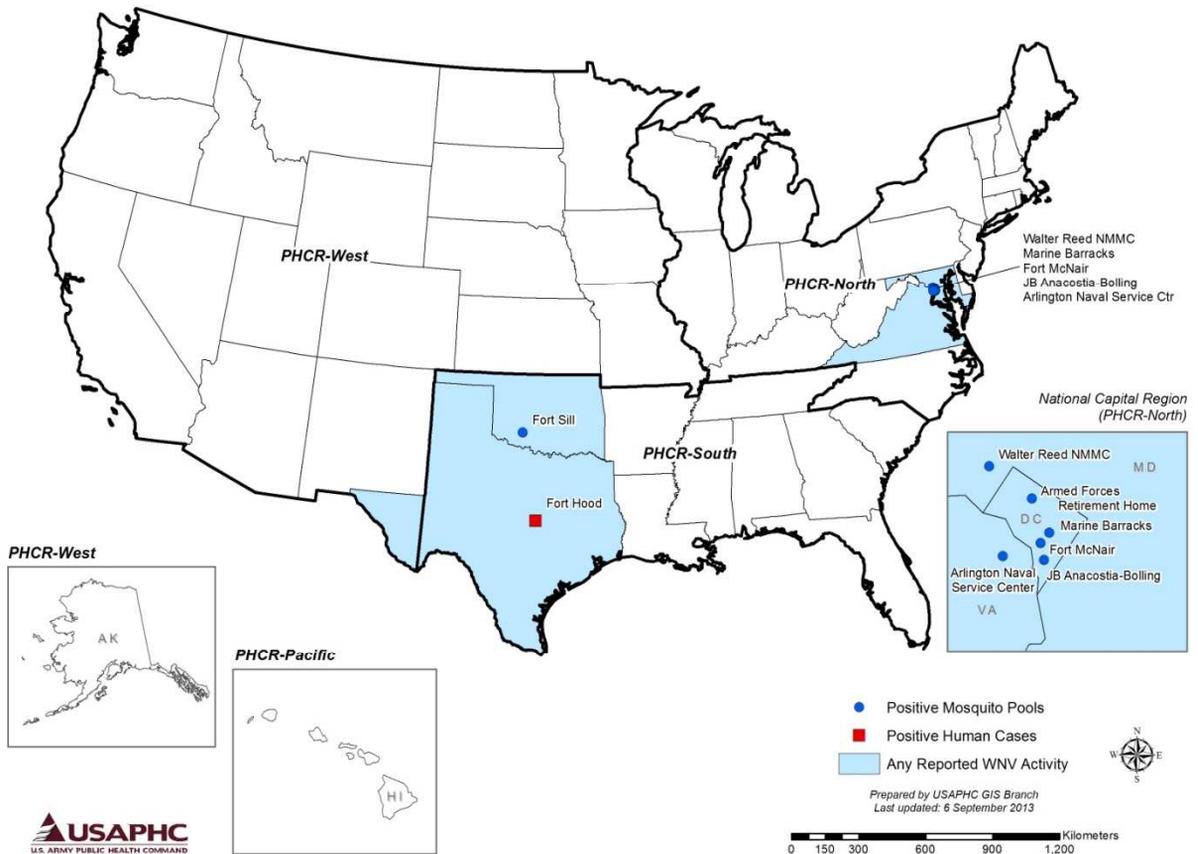
Contact us: USAPHC Disease Epidemiology or 410-417-2377

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# West Nile Virus Activity, by State and Army Public Health Command Region (PHCR), United States, 2013

As of September 5, 2013



Prepared by USAPHC GIS Branch  
Last updated: 6 September 2013

0 150 300 600 900 1,200 Kilometers



Footnote: The map displays white areas that indicate no reported West Nile virus (WNV) activity, light blue areas represent any reported WNV activity\* within a state; dark blue circles represent WNV positive mosquito pools on military installations, and red squares represent the reporting location/installation of Army human cases (probable and/or confirmed). If West Nile virus infection is reported from any area of a state, that entire state is shaded light blue.

\*Includes WNV Army human disease cases (probable and/or confirmed) and infections in mosquito pools on military installations.

Prepared by: US Army Public Health Command Geographic Information Systems Branch.