

War Tech

The technologies of war

Iraq war tools

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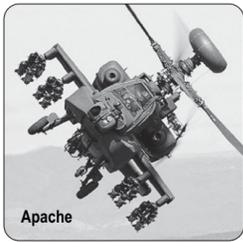
THE deadliest warfare I have ever experienced in my short life is currently taking place. Twelve years have passed since the last US-led war with Iraq occurred. That is just a blurry memory to me. But in terms of war technologies light years have passed. Military officials and experts are quoting 'Iraq Invasion' as the most IT-intensive military campaign in human history.

"There are more computers on the battlefield than ever before" said an operations officer for the US Army. They call it a "network-centric warfare". The US mobile headquarters facility includes a high-speed fiberoptic network backbone that can deliver video over IP to the desktop, as well as direct links to the hundreds of intelligence and surveillance systems and deployed forces in and around the Persian Gulf.

The US government has been spending billions of dollars into developing new wartime technolo-



JASSM



Apache



F-117 Nighthawk



Firefinder



Paveway GBU12

gies. Much of the technology being seeded today will take years before it sees light. But some new products are already slated for use in the US conflict with Iraq. Many technologies being used in this war have been under development since the first Persian Gulf War 12 years ago.

Some of the latest technology includes satellite-guided global positioning systems, transponders, weapon-locating radar systems and videoconferencing. But no matter how advanced technologies are used in war, they will always be termed as

the 'technology of destruction' and a curse to humanity.

Here is a snap of the weapons that are likely being used in Iraq.

Global Positioning System (GPS)

The Global Positioning System (GPS) has improved a lot since Operation Desert Storm. Now GPS systems are used for airborne and space vehicles, missiles and munitions and surface mobility applications. GPS allows direct exchange of information among soldiers on the front lines, rather than requiring information to be routed through headquarters.

Reports say, the 4th Infantry Division is the US Army's first fully IT-equipped division. It will arrive in Iraq armed with software called Force XXI Battle Command Brigade and Below, which is designed to provide soldiers with vital battlefield information, especially the location of friendly and enemy forces.

Weapon Locating And Air Defense Radar Systems

Firefinder: Within seconds, the Firefinder radar systems can detect and backplot the fire of adversary weapons, rockets and mortars, to provide pinpoint targeting

information for the counterattack.

Firefinder radars scan electronically in three dimensions. The stationary antenna sweeps a rapid sequence of beams along the horizon, forming an electronic radar curtain over a 90° area.

Missiles

JDAM: The Joint Direct Attack Munitions (JDAM) is a satellite guided air-to-surface weapon that uses either the 2,000-pound BLU-109/MK 84 or the 1,000-pound BLU-110/MK 83 warheads as the payload. JDAM enables employment of accurate air-to-surface weapons against high priority fixed and relocatable targets from fighter and bomber aircraft.

JASSM: A US Joint Air to Surface Standoff Missile (JASSM) is an air-launched precision cruise missile that uses signals from satellites to find its target.

Tomahawk: A precision-guided long-range US cruise missile fired from a submarine, destroyer or cruiser.

Hellfire missile: This is a laser-guided anti-armor missile used by Army and Marine Corps attack helicopters and land attack vehicles.

Aircrafts and Choppers

F-16 Fighting Falcon: The F-16 Fighting Falcon is a compact, multirole fighter aircraft. It is highly maneuverable and has proven itself in air-to-air combat and air-to-surface attack.

F-117 Nighthawk: The F-117A Stealth fighter is the world's first operational aircraft designed to exploit low observable stealth technology. The unique design of the single-seat F-117A provides exceptional combat capabilities.

Apache Longbow: These multirole combat helicopters use laser, infrared and other high-technology systems to find, track and attack targets.

F/A-18E/F Super Hornet: Upgraded multi-role fighter, an upgraded version of F/A-18 Hornet with 11 weapons stations.

F-15 Eagle: The F-15 has electronic systems and weaponry to detect, acquire, track and attack enemy aircraft while operating in friendly or enemy-controlled airspace.

B2 Stealth Bomber: The B-2 is a multi-role bomber capable of delivering both conventional and nuclear

munitions. The B-2 brings massive firepower to bear, in a short time, anywhere on the globe, through previously impenetrable defenses.

Predator: Unmanned spy plane. The Predator, equipped with Hellfire missiles, was used to track and kill six suspected members of al-Qaeda in Yemen.

Tanks

M1-A2 Abrams: The US Army's most advanced battle tank. It destroys enemy forces using firepower, maneuver, and shock effect and has a top speed of 40 mph (60 km/h).

Others

FDECU: The Field Deployable Environmental Control Unit FDECU is a heat pump intended for use in cooling, heating, dehumidifying, filtering and circulating air. It can also filter air in chemical or biological contaminated areas.

Dolphins: Two animals trained by the US Navy are helping to clear mines from the waters around the southern Iraqi port of Umm Qasr. Dolphin's biological sonar is far superior to human systems for detecting objects in the water and on the seabed.



Tomahawk missile: looks nice but deadly

Dr. Tech

Dear Dr. Tech
I have spent countless hours locating sites that I find useful. It would be more than a little upsetting to lose all those hard-earned bookmarks. What will happen if my hard drive expires unexpectedly or I switch computers. Is there anyway I can save them?
Dhrubo
Dear Dhrubo,
So, how do you save them? Easy! As you have not mentioned your browser I will show you how to do it in Internet Explorer and Netscape separately.
Explorer:
If you use Internet Explorer, just head to your Favorites folder, located under your Windows Directory. (The fastest way to get there is to **right-click your Start button**

and select **Explore**. You'll end up, by default, in your Windows Start Menu folder, just scroll up to the Favorites folder).
Slip in a floppy disk, **right-click the Favorites Folder**, and select **Send to, 3 1/2" floppy**. Unless you have several thousand bookmarks, they should all fit on a single floppy, no problem.
Netscape Navigator 6:
For those who use Netscape Navigator, you can export your bookmarks to an HTML file. Here's how
1. Open Netscape and hit the Bookmarks menu, Manage Bookmarks.
2. From the resulting screen, hit File, Export Bookmarks.
3. Stick a 3.5 floppy in and navigate to it via the Export Bookmarks dialog box.
dailystartech@yahoo.com

War Tech

War reporting goes hi-tech

BBC ONLINE

IMPROVEMENTS to equipment used by reporters travelling with troops in Iraq mean that viewers are getting unprecedented access to a war as it unfolds.

Small satellite phones, laptop video editing software and light digital cameras are helping journalists file broadcast-ready reports direct from combat zones.

Before now, many journalists in war zones had to put reports on tape which then had to be carried far behind the frontline before being broadcast.

Two-man team

Just as computers have shrunk to a size that can easily be carried around so have many of the devices that frontline journalists use to file their reports.

In 1991, during the Gulf War, satellite phones existed but weighed up to 40 kilograms and had to be powered by mains electricity or a generator.

The devices were luggable rather than portable and made it hard for reporters to deliver pictures of events as they were happening.

Mark Tyrrell, manager of resources and development in the BBC's News-gathering arm, who helps to kit out reporters in the field, said technology had improved considerably by the time this conflict began.

He said "embedded" reporting teams that were travelling with troops could only be made up of two people; one reporter and a cameraman/editor.

Powerful package

Now, he said, satellite phones



were little bigger than a laptop computer and could easily be moved around.

The quality of the video and audio sent back is better than before because the satellite phones use ISDN which gives them more bandwidth than is available via ordinary phone lines.

The satellite phones can also do live, low-quality video conferencing via ISDN.

The ability to send back these reports was changing the way that wars were reported, said Tyrrell.

The satellite phones allow reporters to send back much higher-quality video, too, albeit slowly, said Tyrrell.

Drip feed

The phones can stay in constant contact via the Thuraya network which uses geostationary satellites whose footprint covers the Middle East and Europe.

As a result, large files can be dripped back slowly to the BBC for broadcast and for use in news bulletins. Tyrrell said every minute of broadcast quality video took 25 minutes to be transferred via the satellite network.

Reporters are also equipped with Iridium satellite phones that connect via a constellation of spacecraft orbiting around 675 kilometres (420 miles) high.

In addition to satellite phones, BBC reporters are using the Panasonic ToughBook, a ruggedised laptop, to edit video and audio reports in the field and prepare them for transmission.

The laptops can survive life on the frontline but the biggest danger to the laptops was sand.

"The tiniest bit of grit could destroy things like USB connectors," said Tyrrell.

Tech Toon



"This computer is very fast! It became outdated faster than any computer I've ever owned."

Star Tech Quiz 33

- Check the box beside the correct answer
- What protocol is used to upload to the web?

<input type="checkbox"/> NetBios	<input type="checkbox"/> FTP
<input type="checkbox"/> TCP/IP	<input type="checkbox"/> DataLink
 - What is the best medium to install in a high-interference area caused by electromagnetic interference?

<input type="checkbox"/> STP	<input type="checkbox"/> Fiber-optic Cable
<input type="checkbox"/> Coaxial Cable	<input type="checkbox"/> LAN
 - Which device works mainly on the Network Layer of the OSI model?

<input type="checkbox"/> Hub	<input type="checkbox"/> Repeater
<input type="checkbox"/> Router	<input type="checkbox"/> Switch

Name: _____ Occupation: _____
Address: _____
Contact Number: _____ E-mail: _____

Last week's answers

1. TCP/IP. 2. World Wide Web Consortium. 3. Industry Standard Architecture.
Winners: Md. Monirul Islam (correct answers : 2)
29, West Mollartak, Uttara Dhaka 1230
Please fill this up and send your answers to Star Tech Quiz, The Daily Star, 19 Karwan Bazaar, Dhaka 1215 by April 7, 2003.

Wrist magic



Naoyuki Hori, NTT DoCoMo's Public Relation Department, shows off the company's latest Personal Handyphone System (PHS) mobile phone, "Wristomo" at its headquarters in Tokyo on March 26. The waterproof wrist-watch phone, Wristomo opens up into a functional PHS handset pressing buttons on either side of the watch face.

Tech Jobs

- www.bdservers.com**
Post: System Admin
Last Date: April 15, 2003
- Ahsanullah University of Science and Technology**
Post: Teaching posts at different level in the Departments of Electrical & Electronic Engineering and Computer Science & Engineering.
Last Date: April 07, 2003
- Ranks ITT Ltd. (a member of Rangs Group)**
Post: Marketing Executive (Software)
Last Date: April 29, 2003
- Perdana College of Malaysia**
Post: Part-time Faculty Member
Last Date: April 06, 2003
- Rahman Rahman Huq**
Post: Manager, Information Technology
Last Date: April 10, 2003
- (A Leading ISP, under a Renowned Group of Company.)**
Post: Graphic Designer
Last Date: April 4, 2003
- BSM Limited**
Post: MCSE, MCSD and MCDBA Faculty fulltime or part-time
Last Date: April 10, 2003
- Communications Technology Ltd.**
Post: Deputy Manager Telecom
Last Date: April 03, 2003
source: www.bdservers.com

Tech Snaps

Browsing fair

To make Internet browsing more friendly and comfortable the recently formed 'Cyber Cafe Owners Association of Bangladesh' has decided to arrange a 3 (three) daylong "Browsing Fair" at Lagoon Convention Center (Rifles Square, Dhamondi) from May 01 - 03, 2003, says a press release. 15,000 visitors are expected at the fair.

HP lucky draw

The prize giving ceremony of HP Golden Bonanza and Digital Imaging Fair was held on March 24 at a local restaurant in Dhaka, says a press release.
Bob Ang, IPG-Country Sales Manager for Bangladesh, HP, distributed the prizes among the winners. Shabbir Shafiullah, Business Development Manager, HP, was also present in the ceremony.

Photo Tech



PHOTO: AFP

Japanese electronics giant Toshiba unveils a prototype model of the home use robot "ApriAlpha" which enables a user to control home electronic appliances and information terminals with face and voice recognition technology, during a demonstration at the company's laboratory in Kawasaki, suburban Tokyo on March 31. Toshiba will exhibit it at a robot show in Yokohama this week and expects to put it on the market in 2005.

Best 10 Websites Category: Toys

- ToysRU.com**
Shop For Toys Online!
URL: <http://www.toysrus.com>
- TX40 Toys**
At TX40 Toys, you will find an extensive range of top quality branded toys at galactically discounted prices.
URL: <http://www.toys.tx40.com>
- ToyClassics.com**
Classic and Award Winning Toys for Grandkids and Kids of Any Age! Winner of a 1999 Parents' Choice Seal of Approval
URL: <http://www.toyclassics.com>
- Disney Store.com**
Shop for all your favorite Disney Toys online!
URL: <http://store.disney.go.com>
- areyougame**
The Internet's Greatest Puzzle And Game Store.
URL: <http://www.areyougame.com>
- KBkids.com**
Toys And More!
URL: <http://www.kbkids.com>
- Brainstorms.com**
BRAINSTORMS.com combines energy, enthusiasm, and courtesy with a high level of professionalism not always found in organizations which carry rare and hard-to-find items such as these.
URL: <http://www.brainstorms.com>
- Games2Learn**
Games2Learn, also known as A Better Way of Learning, develops, markets and provides children and adults with quality, fun, interactive educational products designed to increase their skills in language, math and general knowledge in an entertaining way.
URL: <http://www.games2learn.com>
- epinions.com**
What's the best kind of toy for little babies who don't yet have strong motor or perceptual skills? - Epinions helps people make better buying decisions.
URL: http://www.epinions.com/kifm-Toys-Toys_for_Little_Babies
- Great Beginnings**
This family owned business opened in 1991 as a complete line baby specialty store. It has expanded to offer toddler and juvenile furniture and accessories as well.
URL: <http://www.greatbeginnings.net>