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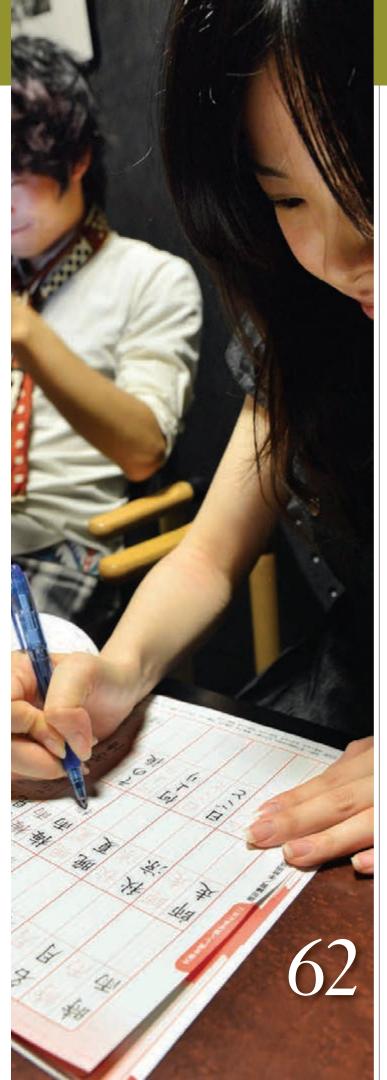
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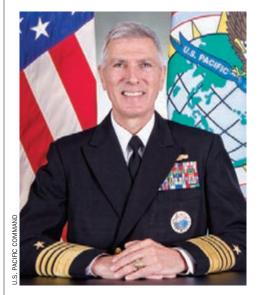
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ABOUT THE COVER:

This illustration highlights the importance of the movement of the Indo-Asia-Pacific region to the center of the world stage. Shifts are occurring within the region as well, creating many opportunites and challenges for security.



Dear Readers,

elcome to the latest edition of Asia Pacific Defense FORUM, which focuses on balancing regional change. As the center of global interaction continues to shift toward the Indo Asia Pacific, myriad shifts are occurring within the region as well. China is changing its course economically, politically, militarily and socially. Recognition continues to spread of the growing importance of Southeast Asia and South Asia to the region at large. Burma, for example, has reopened its borders and undertaken reforms. New centers of

innovation as well as sites of competition for resources have emerged across the region. As population densities and demographics evolve, so do opportunities and challenges.

This issue examines the significance of many of these often seismic shifts within the Indo Asia Pacific and internationally. In this context, it's important to remember that the Pacific Ocean connects the United States to this hub of world activity. We are connected not only by our cultures, our shared interests and our security challenges but also by our eagerness to actively develop innovative approaches and solutions to foster peace and stability in the region.

To stimulate discussion, we open the issue by sharing perspectives from a cross-section of nations on the U.S. rebalance, including Japan, China, South Korea, India, Australia and Thailand. We analyze several leading transitions underway throughout the region, including China's internal rebalancing across its economic, military and political centers and Japan's efforts to raise its international profile and expand its military footprint. We also look at the success and agility of the 60-year alliance between the U.S. and South Korean governments and militaries that has enabled adaptation to ever-changing security challenges.

The accelerating pace of regional change puts a greater emphasis on partnerships. Humanitarian assistance and disaster relief, maritime domain awareness, capacity building and multilateral exercises become increasingly more important in achieving an equitable balance of power and securing regional stability and prosperity. Moreover, partnerships with nations throughout the region represent a central part of the rebalance. They remain vital to leveraging the unique strengths of our various partners and allies to positively face critical challenges and realize emerging opportunities.

FORUM strives to engage readers in discussions about issues and solutions that can make a difference for families, communities and nations. I hope this issue stimulates dialogue about how to succeed at balancing regional change, and we look forward to your feedback.

Please contact us at **contact-apdf@apdforum.com** with your thoughts.

All the best,

SAMUEL J. LOCKLEAR, III Admiral, USN Commander, U.S. Pacific Command

APD FORUM

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USPACOM LEADERSHIP

SAMUEL J. LOCKLEAR, III Admiral, USN Commander

THOMAS L. CONANT Lieutenant General, USMC Deputy Commander

ANTHONY G. CRUTCHFIELD Major General, USA Chief of Staff

TERRENCE J. O'SHAUGHNESSY Major General, USAF Director of Operations

PROGRAM OFFICERS

ROBERT E. KJELDEN Lieutenant Colonel, USA

EDSEL H. GUM APD FORUM Manager

CONTACT US

APD **FORUM**

Asia Pacific Defense FORUM Program Manager, HQ USPACOM Box 64013 Camp H.M. Smith, HI 96861 USA

http://apdforum.com email: contact-apdf@apdforum.com

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COL. WILLIAM P. SCHWAB is the J-3 Joint Operations Center director and former J-5 Oceania Branch chief at U.S. Pacific Command. He was commissioned in the U.S. Army as a tactical nuclear artillery officer and served in Greece. After rotary and fixed-wing pilot training, he led a detachment flying operational support in Bosnia and throughout Europe. Prior assignments include the Pentagon,

providing daily operational updates to the secretary and chief of staff of the Army and also coordinating political-military support for multinational forces in Iraq and Afghanistan at the Joint Staff. His Juris Doctor degree emphasized aviation and international commercial and public law. He is pursuing a Master of Strategic Studies through the Army War College. Featured on Page 20



LT. COL. VISETH NGAUY obtained her medical degree at the University of Maryland at Baltimore through the U.S. Air Force Health Professions Scholarship Program in 1999. Her interests in tropical medicine and clinical research led her to the U.S. Military HIV Research Program, where she was the clinic director of the Vaccine Clinical Research Center in Rockville, Maryland. She now

serves at Armed Forces Research Institute of Medical Sciences in Bangkok, Thailand, as chief of the Department of Retrovirology. She oversees Phase 1 and 2 HIV vaccine trials, high-risk cohort studies and related laboratory activities. Featured on Page 48



ADM. D K JOSHI became the Indian chief of Naval staff in August 2012. A specialist in anti-submarine warfare, he graduated from the U.S. Naval War College; the College of Naval Warfare, Mumbai; and the National Defence College, New Delhi. For his sea commands, he was awarded the Nausena, Vishist Seva, Yudh Seva and Ati Vishist Seva medals. After his elevation to Flag rank, Joshi

served in the integrated headquarters in all nodal branches. As commander in chief of the Andaman and Nicobar Command, the only tri-service integrated command, he was awarded the Param Vishist Seva Medal. Featured on Page 50



DR. HARSH V. PANT is an adjunct fellow with the Wadhwani Chair at the Center for Strategic and International Studies and a senior professor in international relations in the Defence Studies Department at King's College London. He is also an associate at the Centre for Science and Security Studies and the India Institute at King's College London. His research focuses on Asian security issues. Pant's most recent books include

The U.S.-India Nuclear Pact: Policy, Process and Great Power Politics; The Rise of China: Implications for India; and The Rise of the Indian Navy: Internal Vulnerabilities, External Challenges. Pant writes regularly for *The Wall Street Journal*, *The Japan Times*, *The Straits Times*, *The National*, and *The Indian Express* newspapers. Featured on Page 58

Join the Discussion We want to hear from YOU!

Asia Pacific Defense FORUM caters to military and security personnel in the Asia-Pacific region. A product of U.S. Pacific Command, the quarterly magazine provides high-quality, in-depth content on topics that impact security efforts across the region — from counterterrorism to international cooperation and natural disasters.

FORUM provokes thoughtful discussions and encourages a healthy exchange of ideas. Submit articles, pictures, topics for discussion or other comments to us ONLINE or at:

Program Manager

Asia Pacific Defense FORUM

HQ USPACOM, Box 64013

Camp H.M. Smith, HI

96861-4013 USA

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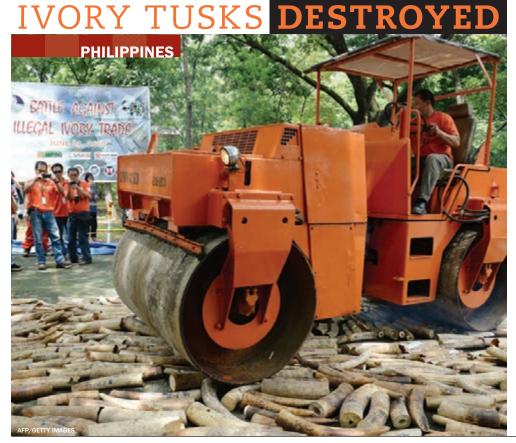


Exploring the issues that impact so many lives



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The Philippines destroyed 5 metric tons of elephant tusks in June 2013 in a landmark event aimed at shedding the country's image as one of the world's worst hot spots for illegal African ivory trading.

The steamroller crushed hundreds of tusks in a wildlife bureau car park, making the nation the first in Asia to eliminate its multimilliondollar stockpile, said Mary Rice, executive director of the Londonbased Environmental Investigation Agency.

"This act is a strong statement to the rest of the world that the Philippines will not tolerate the illegal wildlife trade," Environment Secretary Ramon Paje said.

Agence France-Presse



INTERNATIONAL TASK FORCE **COMBATS FOREIGN BRIBERY**

Investigators from Australia and around the globe joined forces in May 2013 to create an International Foreign Bribery Taskforce as part of a new transborder agreement to combat foreign bribery.

Subject matter experts from the Australian Federal Police, U.S. Federal Bureau of Investigation, Royal Canadian Mounted Police and London Police's Overseas Anti-Corruption Unit plan to work closely to strengthen investigations into foreign bribery crimes and support the Organisation for Economic Co-operation and Development and U.N. anti-bribery conventions.

The task force, which will meet annually to discuss trends and challenges in thwarting bribery of foreign or public officials, provides a platform for police experts to share knowledge, skills, methodologies and case studies.

Agence France-Presse

DISASTER PROGRAM

<< gains momentum >>

More than 1,460 cities and other local governments worldwide, including 128 in India and 113 in the Philippines, have joined the U.N.'s Making Cities Resilient campaign, according to a June 2013 U.N. International Strategy for Disaster Reduction report. The program, launched in May 2010, helps local actors manage urban risks given that they play the first role in responding to crises.

Besides the Philippines, five other members of the Association of Southeast Asian Nations have signed up for the initiative: Thailand, with nine local governments; Indonesia, with eight; Vietnam, seven; and Laos and Malaysia, three each. Other Indo-Asia-Pacific participants include Sri Lanka with 44; China, seven; and Bangladesh,





facebook CRACKS INDONESIAN TERROR CASE

THE ASSOCIATED PRESS

efa Riano didn't try to hide his plans or his beliefs. A Facebook page that police traced to him is plastered with photos of bearded men in camouflage uniforms holding rifles and banners hailing "The Spirit of Jihad."

In an April 2013 status update, he apologized to his parents before telling them goodbye. In another post, he declared, "God willing, I will take action at the Myanmar [Burma] Embassy, hope you will share responsibility for my struggle." It ended with a yellow smiley face.

Days later, police arrested Riano, whose Facebook name is Mambo Wahab, just before midnight in central Jakarta. Police said he and another man were on a motorbike carrying a backpack filled with five low-explosive pipe bombs tied together. Riano, 29, was awaiting charges related to allegations that he plotted to bomb the embassy to protest the persecution of Muslims in Buddhist-majority Burma.

A police investigator revealed Riano's connection to the page to The Associated Press. The investigator spoke on condition of anonymity because he was not authorized to talk to reporters.

The investigator said Riano caused his own downfall by publicizing his mission on Facebook. Police believe it was another Facebook page that drew him to radical Islam to begin with, he added.

Police said a growing number of young people in Indonesia, the world's most populous Muslimmajority nation, are being targeted for recruitment by terrorists on the social media site. More than one in four of the country's 240 million people are on Facebook, thanks in large part to cheap and fast Internetcapable phones.

Although it remains unclear how many terrorists are actually recruited through Facebook, the use of social networking to groom potential attackers poses new challenges for authorities struggling to eradicate militant groups that have been weakened during the past decade. Though Facebook shuts down pages that promote terrorism when it learns of them, police say new pages are easily created, and some have attracted thousands of followers.

Muhammad Taufiqurrohman, an analyst for the Center for Radicalism and De-radicalization Studies who works closely with Indonesian antiterrorism officials, said 50 to 100 militants in the country have been recruited directly through Facebook during the past two years.

He said Indonesia has at least 18 radical Facebook groups, and one of them has 7,000 members. Police said some sites where radical discussion takes place focus on Islam, and others engage in talk about committing violence, such as how to make bombs. Access is blocked unless group administrators allow users to participate.

Fred Wolens, a Facebook spokesman, said the company bars "promotion of terrorism" and "direct statements of hate." Where abusive content is posted and reported, Facebook removes it and disables the account, he said.

Gatot S. Dewabroto, spokesman for Indonesia's Ministry of Communication and Information, said Facebook responds quickly when officials ask them to remove such content. He added that after one page is blocked, others quickly spring up.

Indonesian police said Facebook is one of many places where they have found terrorist activity online. They

have detected militants using online games for attack drills. A group was caught uploading propaganda videos on YouTube, and terrorists are known to have purchased weapons using video calls, said Brig. Gen. Petrus Reinhard Golose, the director of operations at Indonesia's anti-terrorism agency.

Golose said the Internet was used to organize recent terrorist acts in the country, including a 2010 attack on police in Solo and a police mosque bombing in Cirebon a year later. He did not elaborate on how the Web was used

Terrorists have used the Internet for many years but usually anonymously. Groups such as al-Qaida have employed online discussion forums where people left comments but did not directly interact.

The police investigator said authorities were alerted about "Mambo Wahab's" Burma bombing status update by other Internet users. Police used information collected from arrested militants in Riano's online networks to track his Web footprint. After getting his Internet Protocol address and eventually linking it to a mobile phone, authorities say they were able to tap into conversations involving Riano and the plot's alleged mastermind, the investigator said.

Updates on the Mambo Wahab page stopped after Riano's arrest. Some people in Indonesian jails, even on death row, manage to post status updates, though others may be acting on their behalf. As of mid-June 2013, Riano still had about 900 Facebook friends.

Some Indonesian police want the law to address online communications that advocate or abet terrorism. Indonesia's information technology laws ban only pornography and illegal online financial transactions.



Indonesian police officers deploy to the Embassy of Burma in Jakarta in May 2013 to prepare for a planned Muslim hard-liner protest. Officers provided extra security after uncovering a terror plot on the Facebook page of a suspected militant.

THE ASSOCIATED PRESS

Police Maj. Surya Putra, who is researching terrorists' use of the Internet at the Institute of Police Science, said intelligence collected online cannot currently be used as evidence in court. "There are no laws that can effectively charge people who spread hatred," he said.

The government is drafting legislation that would criminalize hate speech and online terrorism activities.

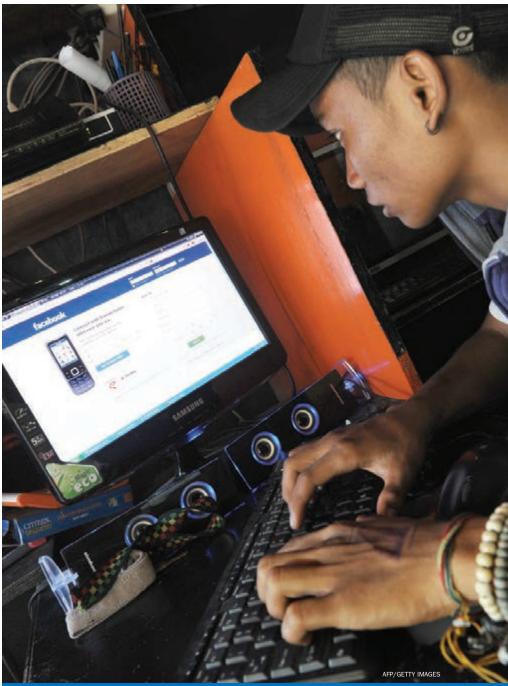
Putra said that although police are starting to surf the Internet as part of their work, many of those arrested for terrorism-linked activities on Facebook were caught not because of cyber patrolling but because police received tips about their accounts. Those cases include nine militants, including one woman, who were sentenced to up to 10 years in jail for funding terrorism activities by hacking into a Malaysian website and defrauding the company out of U.S. \$800,000 in cash and assets.

Sidney Jones, a Jakarta-based terrorism analyst for the International Crisis Group, said that although terrorists groups' Internet use is growing, they still do most of their recruiting face to face at traditional places such as prayer meetings. She said Riano's case is the first time she has seen a group brought together by Facebook.

She said the site is a "really stupid" way to recruit new members because it lacks privacy and no systematic way to vet credentials. She added that even amateurish efforts to commit terrorism, however, can cause mayhem and must be taken seriously.

Ansyaad Mbai, who heads Indonesia's anti-terrorism agency, said Facebook has become "an effective tool for mass radicalization," and that police need more authority to respond to online behavior. "We can't do it alone," he said.

"Radical sermons and jihadist sites are just a mouse click away."



Indonesian Facebook patron Patra Aldian logs on at an Internet shop in the capital city of Jakarta. Indonesia claims the world's third-largest community of Facebook users.



REGIONAL PERSPECTIVES ON THE U.S. REBALANCE

NATIONS RECOGNIZE OPPORTUNITIES FOR COLLABORATION

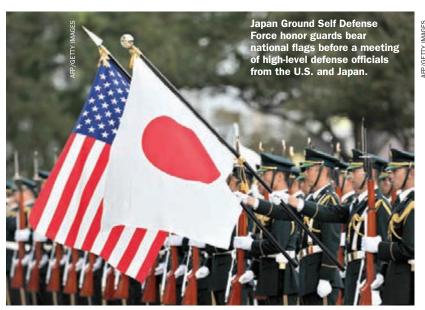
FORUM STAFF

The United States' renewed focus on building relationships in the Indo-Asia-Pacific region has sparked a variety of responses — ranging from appreciation to apprehension. Many nations are eager to expand their economic, political, diplomatic and military ties with the U.S., but they also want to maintain good relations with China. The United States shares the region's goals of cooperation, stability and prosperity, and its rebalance strategy aims to strengthen old alliances and to nurture new ones.

"The rebalance is not about any single country or group of countries," U.S. Deputy Secretary of Defense Ashton B. Carter explained in a speech on August 1, 2012, in New York, U.S., on the rebalance. "It is not about China; it's not about the United States. It's about a peaceful Asia-Pacific region, where sovereign states can enjoy the benefit of security and continue to prosper."

As part of a round-table discussion published in the January 2013 issue of the journal *Asia Policy*, authors from throughout the region voiced their hopes for the rebalance and identified opportunities for developing mutually beneficial relationships as well as citations from U.S. leadership relevant to each author's commentary. The following are excerpts from this commentary.

JAPAN CHINA INDIA THAILAND SOUTH KOREA AUSTRALIA





COORDINATING STRATEGIES FOR DEFENSE

LT. GEN. (RET.) NOBORU YAMAGUCHI/NATIONAL DEFENSE ACADEMY OF JAPAN

U.S. rebalancing toward the Asia Pacific represents a fundamental change in U.S. defense strategy. At the same time, Japan has adopted a new set of security policies — most importantly, the dynamic defense force concept. [Editorial note: This article predates publication of "Defense of Japan," July 2013]. The concept's focus on defense of the southwestern islands may in part provide U.S. forces deployed in and around Okinawa with Japan's defensive cover. There is thus an urgent need for the United States and Japan to conduct an intensive series of dialogues in order to coordinate their respective defense strategies, which encompass a number of areas where the two countries could reinforce each other's efforts. Along with U.S. rebalancing, China's rise will be the central factor in the security landscape of the Asia Pacific. Both the United States and Japan should make their best effort to build and maintain constructive relations with China through various forms of engagement, including military-to-military exchanges. This engagement strategy will work better if the United States and its allies are successful in partly hedging their policies

vis-à-vis China. While China's rise over the last two decades has been significant in military terms, the People's Liberation Army still has a considerable way to go to catch up with the world's first-class militaries. Hence, the United States and its allies in Asia have an opportunity to create a security environment in which regional actors, including China, naturally incline toward cooperative rather than confrontational relations.

This discussion raises the question of the United States' commitment to a robust and continuous forward deployment in the Asia Pacific. To help the United States pursue a more "geographically distributed, operationally resilient and politically sustainable" posture, Japan, along with other U.S. allies such as South Korea and Australia, should work closely with Washington to implement agreed-on programs to relocate U.S. bases in Japan. Through such an effort, U.S. forward deployment in Asia will become more distributed throughout the region, providing countries with a better chance to address various contingencies across a wider range of geographic areas.

U.S. PERSPECTIVE

"What the United States has realized, perhaps more than anything else over the course of the last several years, is that it is not possible for the United States to be an effective actor in the Asia-Pacific region unless we have a partnership of strength and vitality with Japan. It is essential."

- Then-Assistant Secretary of State for East Asian and Pacific Affairs Kurt Campbell,

Keynote Speech at the Center for Strategic and International Studies (CSIS)-Nikkei Forum on October 26, 2012

STRIVING FOR PREVENTIVE COOPERATION

YAN XUETONG/INSTITUTE OF MODERN INTERNATIONAL RELATIONS AT TSINGHUA UNIVERSITY

Chinese realists agree with the mainstream strategists that growing competition between China and the United States is inevitable as the gap in comprehensive national power narrows between the two countries. With China poised to become a superpower second only to the United States by 2022, the strategic competition between them will likely only intensify and proliferate into more sectors. Yet Chinese realists have confidence that selfish interests, such as the desire to avoid military clashes between two nuclear powers, will encourage U.S.-China cooperation, especially preventive cooperation. As long as both sides are vigilant, they can keep their competition peaceful. Consider, for example, that the disputes between China and Japan over the Senkaku/Diaoyu Islands have had almost no impact on China-U.S. relations. This phenomenon illustrates that both Beijing and Washington are wary of conflicts that could escalate to military clashes.

In comparison with U.S. policy toward China during the first term of the [U.S. President Bill Clinton administration, the current U.S. rebalancing strategy is much softer and clearly illustrates the superficial friendship between China and the United States. This state of superficial friendship drives rivalry between the two countries, but the strategy of superficial friendship facilitates cooperation between them. China and the United States have been able to maintain this superficial friendship since the late 1990s, even in the absence of mutual trust, mainly because they share objective strategic interests, such as nuclear nonproliferation, peace in the Asia Pacific, counterterrorism in Central Asia, and trade and investment. In the late 1990s, for example, China and the United States agreed to no longer target nuclear weapons at each other, which helped stabilize bilateral relations.

In order to manage unavoidable competition, the principle of "peaceful competition" may be more useful than the principle of "peaceful coexistence." During

his visit to China in October 2011, [U.S.] Vice President Joe Biden was warmly received by his counterpart Xi Jinping. Xi suggested to Biden that China and the United States should develop a new type of major-power relations characterized by "healthy competition." Following the meeting, no voice from the U.S. side opposed this suggestion. It may be possible for China and the United States to agree on the principle of peaceful competition through preventive cooperation, even if they cannot agree on healthy competition, because the former principle can provide a red line for both sides.

China and the United States should thus expend more effort on developing preventive cooperation than on trying to improve mutual trust. Cooperation can be based on conflicting as well as shared interests. Although in the coming years China and the United States should be psychologically prepared to witness conflicting interests increase faster than common interests, Beijing and Washington can skillfully manage competition by focusing on developing preventive cooperation based on these conflicting interests. China and the United States can develop such cooperation, not only in the military sphere, but also in addressing nontraditional security threats, such as those posed by energy, finance and climate change.

To call for China and the United States to prioritize preventive cooperation does not mean that they should give up on building mutual trust or developing shared interests. Nonetheless, it is important to recognize that preventive cooperation offers a path for the two sides to stabilize their strategic relations in the absence of trust. The worst-case scenario is not that China and the United States will be faced with more competition in the coming years, but that such competition will escalate into military conflict because they never learned how to develop cooperation in the absence of mutual trust or shared interests.



Maj. Gen. Stephen R. Lyons of the U.S. Army Pacific, left, shakes hands with Maj. Tang Fen of China's People's **Liberation Army at** the conclusion of a two-day military exercise in November 2012. The disaster management exercise demonstrated the two nations' willingness to cooperate for the common good.



U.S. PERSPECTIVE

"Of course, the U.S.-China relationship has and will continue to have elements of both cooperation and competition. Our consistent policy has been to improve the quality and quantity of our cooperation, promote healthy economic competition, and manage disagreements to ensure that U.S. interests are protected and that universal rights and values are respected. ... As President Obama has said many times, the United States welcomes the rise of a peaceful, prosperous China."

— Tom Donilon, U.S. national security advisor, in a speech, "The United States and the Asia Pacific in 2013," given to the Asia Society in New York, U.S., on March 11, 2013

REACHING A BALANCE OF POWER

C. RAJA MOHAN/OBSERVER RESEARCH FOUNDATION

While responding cautiously to the U.S. pivot, New Delhi has steadily expanded defense cooperation with the United States and deepened diplomatic engagement with U.S. allies and other leading actors in Asia. At the same time, it has sought to reassure Beijing that India will not become a mere adjunct to the new U.S. rebalancing strategy toward Asia. Its future responses are likely to depend on the evolution of the ground situation and progress in India's bilateral relations with China and the United States.

The United States has made clear its political intentions to maintain its primacy in Asia. A strong and sustainable U.S. role in Asia is welcome in New Delhi, which knows that the regional powers, including India, are not in a position to balance China on their own. Yet India, like many other Asian

nations, will not want to be seen as simply joining the U.S. bandwagon against China. Even when it was profoundly weak, Asia did not submit itself to the discipline of the Cold War. Leading nations of Asia, especially those outside the U.S. treaty system, will want to retain a certain freedom of action in coping with the changing U.S.-China dynamic.

If the United States understands the political logic of this approach, stemming from Asian countries' domestic political considerations as well as from the strategic culture of the last few decades, Washington should attempt to bring a measure of sophistication to the articulation of the Asian pivot. Central to this is the proposition that the United States must not be seen as working "on" Asia, following a predetermined plan crafted in Washington, but rather as working

> "with" the Asian powers in devising a supple approach to balancing China's power. By adopting this strategy, the United States could profitably encourage a number of security initiatives among Asian powers without having to put itself in the political lead on every single initiative in the region.

If the U.S. pivot to Asia is a work in progress, India's adaptation is likely to focus on strengthening the country's own strategic capabilities, bridging its growing gap with China in collaboration with Washington, avoiding provoking Beijing and raising its own independent profile in Asia. India has walked this tightrope well so far, but the rope is long and the going could get tough for New Delhi if push comes to shove between Washington and Beijing.



U.S. PERSPECTIVE

"We see a strong role for Indian leadership ... and for greater U.S.-India cooperation on regional security in the Asia Pacific and elsewhere. India shares many of our values, including a commitment to human rights and democratic government and adherence to the international system of norms and rules, including freedom of navigation and access to resources in accordance with principles of international law. Following the birth in 1991 of its 'Look East' policy, India has made considerable progress raising its profile in East Asia. India's overtures to its eastern neighbors have been met with welcome enthusiasm, as various East Asian countries see India as a rising power that will contribute to the regional balance."

- Joseph Yun, acting assistant secretary of the U.S. Bureau of East Asian and Pacific Affairs, in testimony on February 26, 2013, before the House Committee on Foreign Affairs Subcommittee on Asia and the Pacific in Washington, D.C.

JAPAN CHINA INDIA THAILAND SOUTH KOREA AUSTRALIA





WORKING WITH ASEAN

KITTI PRASIRTSUK/THAMMASAT UNIVERSITY

Some in Southeast Asia are concerned that U.S. rebalancing may divide ASEAN [Association of Southeast Asian Nations] countries based on their threat perceptions of China. The dividing line may be whether or not a country has territorial disputes with China. For claimant countries, the United States is expected to play the role of "balancer." The Philippines, for example, has been active in courting U.S. support in the form of joint military exercises and weapons transfers. Such concerns were underscored by the 2012 ASEAN ministerial meeting in Phnom Penh, which failed to produce a joint declaration for the first time in its 45-year history. The failure is attributable to differences between the host Cambodia and the Philippines on language regarding the South China Sea. Here, Cambodia's position was aligned with China's interests.

Given these and other concerns, the responses from ASEAN countries to U.S. re-engagement in the Asia Pacific have been mixed. While U.S. rebalancing is useful as leverage against Beijing, ASEAN also aims to gain from burgeoning economic ties with a rapidly growing China. As many ASEAN countries pursue a hedging strategy toward both China and the United

States, they fear that at some point they could be forced to choose sides or asked to provide facilities to one power that might agitate the other. This is particularly true for a country such as Thailand, which aims to cultivate good ties with both states. ...

It is advisable that the United States neither generate a dilemma situation whereby regional countries must take sides nor create two poles of power. As mentioned earlier, given that ASEAN states would opt for a hedging strategy, it would be counterproductive for the United States to push too much on its partners. Washington may have to find a "Goldilocks strategy," one that is not too hard and not too soft on China, as well as not too coercive and not too indifferent toward regional partners. ...

The United States should play the role of partner rather than leader in Southeast Asia. Since the situation today is different from that during the Cold War, powerful leadership is not desirable. Washington should respect the principle of ASEAN centrality and key ASEAN norms such as noninterference. ... It is desirable to have a U.S. pivot that is less confrontational, more economic-focused and ASEAN-centered.

U.S. PERSPECTIVE

"We understand that countries in East Asia, South Asia and the Pacific seek good relations with China, and we encourage them to do so. A China that plays by established rules and norms, actively cooperates in addressing regional challenges, and is a source of global economic growth benefits all of us."

— Joseph Yun, acting assistant secretary of the U.S. Bureau of East Asian and Pacific Affairs, in testimony on February 26, 2013, before the House Committee on Foreign Affairs Subcommittee on Asia and the Pacific in Washington, D.C.

SETTLING DISPUTES PEACEFULLY

CHAESUNG CHUN/SEOUL NATIONAL UNIVERSITY

During the next decade, China will place great emphasis on maintaining its course of economic development while also defending its so-called core interests. Contradictions, however, are not absent between these two strategic objectives. International stability is necessary for economic development, yet it will be frequently undermined by China's pursuit of its core interests, which include sovereignty, nonintervention in domestic affairs, and territorial integrity, thus giving rise to conflicts with other countries. As the stakeholders in China's foreign policies become rapidly diversified, it is uncertain which road Beijing will take. The combination of nationalism and conservatism in China will accelerate its military buildup, while the partnership between internationalism and liberalism will enhance its engagement with the rest of the world.

Considering these changes, redefining the role of the U.S.-ROK [Republic of Koreal alliance relative to Washington's rebalancing effort will be crucial. The alliance, which has lasted almost six decades, has successfully preserved the stability of the Korean peninsula as well as managed regional security relations. However, it will face a variety of challenges in this decade. Along with leadership transitions on the Korean peninsula, the rise of China and the changing military balance in Asia raise new issues for the military relationship between South Korea and the United States. The discrepancy between this new regional security architecture and the economic one further complicates the posture of South Korea and the United States toward China. Most countries in Asia maintain strong economic interdependence with China, and South Korea is no exception. For almost a decade, South Korea's biggest trading partner has been China, while the United States has been its most important security partner. Given this context, the future tasks for the U.S.-

ROK alliance will be to peacefully manage the evolution of the regional balance of power, establish a cooperative mechanism for working with China, and address regional security issues, such as North Korea, territorial disputes, and human security concerns. This will only be possible when the trust that is necessary for long-term strategic cooperation exists among South Korea, the United States and China.

South Korea hopes that the process of managing these issues will be peaceful. The bottom line is that there needs to be an East Asian regional order flexible enough to permit a balance of benefits and rights that reflects the shifting balance of power. Given the uneven development of national power in international politics, the critical issue is whether there is systemic flexibility and adaptability to adjust to the new distribution of power. Enhancing systemic flexibility means (1) preventing war among great powers or military clashes for regional hegemony, (2) peacefully managing difficult regional affairs that have implications for greatpower rivalry, (3) establishing universal and international norms in spite of the power shift, and (4) enhancing the role of middle powers to reduce strategic distrust among great powers, especially between the United States and China.

The road ahead will be quite bumpy, but it is important to clear the way through establishing a dispute-settlement mechanism and preventing specific issues from escalating into strategic confrontation. Another key point is that the end state of disputes should observe regionally respected values, such as stability, peace, human rights, democracy and liberty. Systemic flexibility should not encroach on the basic normative framework of regional order. If East Asia manages the process of conflict settlement wisely, it has the potential to transform the regional organizing principle from anarchy to cooperation.



A North Korean soldier takes photos at the truce village of Panmunjom along the border of North and South Korea. The security provided by the U.S.-South Korea alliance helps maintain stability on the peninsula.



U.S. PERSPECTIVE

"There's nothing abstract about our rebalance in Korea. Our men and women and our allies have a mission; all you need to do is look north to see what they have to do. It's been a dynamic time on the Korean Peninsula, and our alliance provides a stabilizing and deterring presence. As we strengthen our own capabilities, we are looking to South Korea to strengthen theirs as well, while maintaining the interoperability we've enjoyed for the last 50 years."

— U.S. Deputy Secretary of Defense Ashton B. Carter, in an August 1, 2012, speech, "The U.S. Strategic Rebalance to Asia: A Defense Perspective," in New York, U.S.

ENDURING PARTNERSHIPS

PETER JENNINGS/AUSTRALIAN STRATEGIC POLICY INSTITUTE



U.S. President Barack Obama greets Australian troops and U.S. Marines in Darwin, as the countries' militaries expand their cooperative efforts.

U.S. interest in the Asia Pacific is driven by the region's size and economic dynamism — "Here we see the future," [U.S. President Barack] Obama told the Australian Parliament. Clearly an important factor behind the joint announcement was the sense of heightening strategic competition in the region as Chinese growth propels Beijing into rough economic parity with the United States. Economic weight leads to strengthening military capabilities, and a more confident and diplomatically assertive China worries many smaller powers in the region, where the United States is still regarded as a vital guarantor of strategic stability. Obama's message that "the United States of America is all in" is thus broadly welcomed. Some Australian analysts interpreted Obama's speech to the Parliament as a direct challenge to China because of the president's very firm language about freedom — "History is on the side of the free — free societies, free governments, free economies, free people"



— but the speech was equally clear in expressing Obama's commitment to building a "cooperative relationship with China."

Since World War II, Australia has defined a core strategic interest in maintaining a close defense relationship with the United States. While wartime cooperation was directly driven by fear of invasion, the postwar alliance was shaped more by Australia's interest in keeping Washington engaged in the broader security of the Asia Pacific. Australia is not under direct threat from any country but, rather, is concerned that competition between the region's major powers may cause broader instability.

The U.S. Marine presence in Australia's north is not on a scale to provide for the direct defense of the country, nor is it designed for that purpose. That said, there is an obvious defense value for Australia in having the near-continuous presence of U.S. military personnel in the north, both to show Washington's commitment to Australian security and to complicate the plans of any country that might seek to harm Australian

interests. However, the most immediate strategic value of enhanced cooperation is to provide a tangible expression of the U.S. commitment to the security of Southeast Asia, a region that has assumed greater importance in U.S. strategic thinking because of the competition for influence between Asia's major powers.

For Australia, the rebalance offers a range of positive benefits. It raises the importance of the relationship in Washington and increases Canberra's ability to influence U.S. policies that matter to Australia, particularly in Southeast Asia. Domestically, the alliance sustains the capabilities of the Australian Defence Force, making the Australian military a more attractive partner for Asian countries to cooperate with. For the United States, the Australian initiatives demonstrate to other Asia-Pacific countries the value of closer cooperation with the U.S. military. \square

This article is an excerpt from a round-table titled "Regional Perspectives on U.S. Strategic Rebalancing" appearing in the January 2013 issue of *Asia Policy*, a journal published by The National Bureau of Asian Research. Reprinted with the permission of the publisher. To read the entire article, go to http://www.nbr.org/publications/element.aspx?id=641.

VIV.S. PERSPECTIVE

"Since World War II, Australians have warmly welcomed American service members who've passed through. On behalf of the American people, I thank you for welcoming those who will come next, as they ensure that our alliance stays strong and ready for the tests of our time."

- U.S. President Barack Obama,

in a speech to the Australian Parliament in Canberra on November 17, 2011

ABOUT THE AUTHORS

 ${\sf JAPAN} < {\sf LT.~GEN.~(RET.)~NOBORU~YAMAGUCHI} \ is retired from the Japan Ground Self Defense Force. He is a professor at the National Defense Academy of Japan.}$

CHINA < YAN XUETONG is dean of the Institute of Modern International Relations at Tsinghua University and is the chief editor of *The Chinese Journal of International Politics*.

C. RAJA MOHAN is head of the Strategic Studies Program at the Observer Research Foundation

INDIA < in New Delhi. He is also a visiting research professor at the Institute of South Asian Studies in Singapore
and a nonresident senior associate at the Carnegie Endowment for International Peace in Washington, D.C.

THAILAND < KITTI PRASIRTSUK is associate dean for international affairs in the faculty of political science at Thammasat University in Bangkok.

SOUTH KOREA < CHAESUNG CHUN is a professor in the Department of Political Science and International Relations at Seoul National University.

AUSTRALIA < PETER JENNINGS is executive director of the Australian Strategic Policy Institute in Canberra and a former deputy secretary for strategy in the Australian Department of Defence.



POLAR POWER

THE RACE FOR RESOURCES IN THE ARCTIC AND ANTARCTIC HEATS UP

COL. WILLIAM P. SCHWAB/U.S. ARMY

elting polar ice has opened sea lanes in the Arctic; the Antarctic as well has improved as opportunities for shipping, fishing, resource extraction and tourism.

As Indo-Asia-Pacific economies continue to grow, so do their interests in the planet's polar regions. Regardless of proximity to the chill expanses, energy-poor countries and global business interests alike are eagerly eying and ultimately vying for control of oil, gas and minerals — even meteorites — previously unreachable beneath the frozen ice caps.

Nations must temper emerging competition with cooperation to maintain economic parity and regional security, experts say. Enabling pursuit of critical scientific research and protection of pristine environments also remain paramount. Meanwhile, the geopolitical environments of the poles are changing as rapidly as the physical ones.

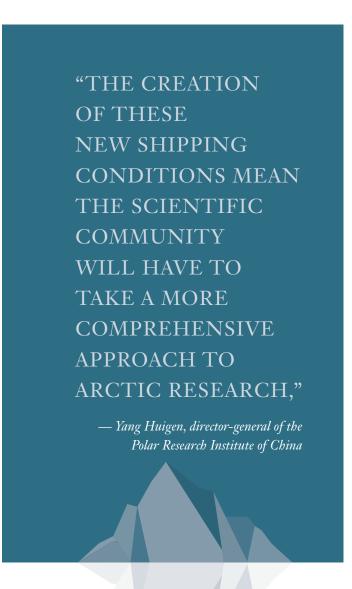
ARCTIC AFFAIRS

In May 2013, China, India, Italy, Japan, South Korea and Singapore became permanent observers to the Arctic Council, joining six nations and 20 assorted intergovernmental and nongovernmental organizations

already with observer status, such as the Nordic Council of Ministers and the International Arctic Science Committee. The council, made up of the eight member states with territories in the Arctic, formed in 1966 to promote cooperation, coordination and interaction on common Arctic issues, such as sustainable development and environmental protection (see sidebar).

In its application to join the Arctic's governing body, China's State Oceanic Administration proclaimed the Arctic as "the inherited wealth of all humankind," The New York Times newspaper reported in September 2012. In the latest review cycle, however, the council's foreign ministers denied observer status to all of the international groups that sought it, including nongovernmental organizations such as Greenpeace and the Association of Oil and Gas Producers. The stakes are high, given that the Arctic alone may hold 20 percent of the world's undiscovered oil and gas, according to some estimates.

As sea lanes open, such riches become ripe for exploitation. The opening of the Northern Sea Route during parts of summer allows ships moving from Asia to Europe to cross the Arctic much faster than on conventional routes via the Indian Ocean, Suez Canal



and Mediterranean Sea. In fact, shipping times between Europe and Asia could shorten by one-third, Yang Huigen, director-general of the Polar Research Institute of China, said at The Economist's Arctic Summit in Oslo, Norway, in March 2013, the state-run China Daily newspaper reported.

In 2012, 46 ships carrying 1.26 million tons of cargo traversed the northern route. That year, China's icebreaker Xue Long, meaning Snow Dragon, became the nation's first ship to make the northern passage, China's statecontrolled newspaper Xinhua reported in July 2012. The first commercial Chinese ship made the voyage in summer 2013, and China will launch a second icebreaker in 2014, China Daily reported. Russia's shipping industry stands to benefit as well from expanded use of Arctic waters, especially for trade with China, a Russian Ministry of Foreign Affairs official told China Daily.





China, which considers itself a "near-Arctic nation," could shift up to 15 percent of its trade through the Northern Arctic sea route by 2020, according to some estimates. If Chinese trade grows to U.S. \$7.6 trillion by then, as projected, shifting 10 percent of that commerce to Arctic routes could be worth billions of dollars, director-general Yang told *China Daily* in March 2013. "The creation of these new shipping conditions mean the scientific community will have to take a more comprehensive approach to Arctic research," he said.

Interest is keen enough that Arctic

nations and NATO have increased their military capabilities in the region. The U.N. Convention on the Law of the Sea, which the U.S. is yet to ratify, provides Arctic nations an exclusive economic zone, extending 200 nautical miles from land and covering undersea resources farther out. Until recently, those borders were of little concern. The Arctic Council, for its part, only permits states with territories in the Arctic to be full members, according to its website. The eight Arctic member states are Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and the United States. Six international organizations are permanent participants on the Arctic

Council and represent indigenous Arctic people and other living inhabitants, the council website states (see "Arctic Council by the Numbers," page 25).

Nations without implicit territorial claims are working to establish ties in the region through business investment and partnership with local entities. In June 2012, for example, then-Chinese Premier Wen Jiabao visited Iceland and entered into several agreements regarding energy development and free trade. China has implemented similar diplomatic strategies in Latin America and Africa to gain access to resources. Chinese businesses are also investing in mining and transportation operations in Greenland. "There is already a sense of competition in the Arctic, and they think they can have first advantage," Jingjing Su explained to The New York Times in September 2012. Su practices law at Bech Bruun, a Copenhagan-based firm that represents many Chinese clients.

ANTARCTIC ACTIVITIES

Unlike the Arctic, Antarctica theoretically remains open to all nations under the auspices of the Antarctic Treaty System (see sidebar, page 26). Historically, however, costs have prohibited emerging nations from establishing science programs there.





2. With Iceland's
Gullfoss waterfall as
a backdrop, Icelandic
Prime Minister Johanna
Sigurdardottir, left, and
then-Chinese Premier
Wen Jiabao met in April
2012 to discuss Chinese
investment in Iceland.

Antarctic Treaty members, including the U.S. and China, have agreed to refrain from exploiting resources in the region until 2048. However, nations may conduct geographical surveys for science exploration that could also be used for future extraction purposes, including mining energy reserves and commercializing new products derived from biological resources. Meanwhile, tourism to the region has tripled since 2005 from roughly 13,500 visitors a year to about 38,000 a year in 2010 and is still climbing, the Stars and Stripes newspaper reported. Although tourism and fishing also offer economic promise, both industries remain largely unchecked in the region.

"The strong interest of many states in Antarctic bioprospecting is again raising the spectre of the Antarctic Treaty System as an iniquitous institution but this time only those with the scientific knowhow and easy access to useful research sites will be able to join the gold rush," Professor Anne-Marie Brady of Canterbury University in Christchurch, New Zealand, wrote in the proceedings of "Australia's Antarctica," a 2012 symposium marking 75 years of the Australian Antarctic Territory.

RESEARCH INVESTMENT

China seems to be leading the polar push among Indo-Asia-Pacific nations, tripling its overall polar research budget in the past decade. In describing the nation's latest five-year polar plan, Chen Lianzeng, deputy head of the China Arctic and Antarctic Administration, said in June 2011 that China aims to safeguard its "polar rights" by increasing its "status and influence" in matters relating to the polar regions, *Xinbua* reported.

In Antarctica alone, China has doubled its research

ARCTIC COUNCIL BY THE NUMBERS



Year Founded: 1966

Arctic Nations with Full Membership



St Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and the U.S.

Permanent Organization Participants



Arctic Athabaskan Council, Aleut International Association, Gwich'in Council International, Inuit Circumpolar Council, Russian Association of Indigenous Peoples of the North and the Saami Council

Established Observer Nations



France, Germany, the Netherlands, Poland, Spain and the U.K.

New Observer Nations



6: China, India, Italy, Japan, South Korea and Singapore

Number of Arctic Inhabitants



4 million, with 500,000 classified as indigenous peoples

Next Council Meeting 2015 in Canada

Other
Organizations
with Observer
Status: 20

International Federation of Red Cross & Red Crescent Societies, International Union for the Conservation of Nature, Nordic Council of Ministers, Nordic Environment Finance Corporation, North Atlantic Marine Mammal Commission, Standing Committee of the Parliamentarians of the Arctic Region, United Nations Economic Commission for Europe, United Nations Development Program, United Nations Environment Program, Advisory Committee on Protection of the Seas, Arctic Circumpolar Gateway, Association of World Reindeer Herders, Circumpolar Conservation Union, International Arctic Science Committee, International Arctic Social Sciences Association, International Union for Circumpolar Health, International Work Group for Indigenous Affairs, Northern Forum, University of the Arctic, World Wide Fund for Nature-Global Arctic Program

ANTARCTIC RULES

COL. WILLIAM P. SCHWAB/U.S. ARMY

he Antarctic is governed by a unique international regime known as the Antarctic Treaty System (ATS), which ensures that a universal foundational policy principle toward Antarctica "recognizing that it is in the interest of all mankind that Antarctica shall continue forever to be used exclusively for peaceful purposes and shall not become the scene or object of international discord." The Antarctic Treaty, which took effect June 23, 1961, is the core of the ATS. To date, 50 member nations have signed the treaty, which essentially demilitarized Antarctica and included important provisions such as:

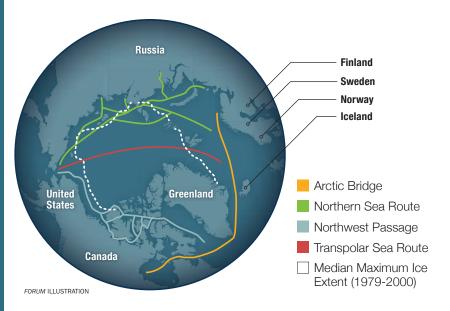
- Antarctica shall be used for peaceful purposes only. (Article I)
- Freedom of scientific investigation in Antarctica and cooperation toward that end ... shall continue. (Article II)
- Scientific observations and results from Antarctica shall be exchanged and made freely available. (Article III)

Much like the Arctic Council, the original 12 nations (Argentina, Australia, Belgium, Chile, France, Japan, New Zealand, Norway, Russia, South Africa, the U.K. and the U.S.) and parties conducting research activity in Antarctica meet annually "for the purpose of exchanging information, consulting together [to] recommend ... to their Governments measures in furtherance of the principles and objectives of the Treaty." (Article IX)

Other parts of the ATS include conventions to protect marine life and seals, as well as the environmental protocol. Significantly, the Protocol on Environmental Protection to the Antarctic Treaty was a hallmark agreement designating Antarctica as a natural reserve and committing all parties to the protection of Antarctica. The environmental protocol included a medium-term, 50-year ban on mining in Antarctica.

Source: The Antarctic Treaty, available at: http://www.ats.aq/e/ats.htm

ARCTIC ROUTES



investment in the past decade, spending U.S. \$55 million in 2012, according to reports in May 2013. China and the U.S. both have three permanent research stations in Antarctica, and China is reportedly looking to build a fourth.

China is closing in on the relatively flat expenditures of the U.K. and Russia, the thirdand fourth-largest players in the region. South Korea and India have also increased Antarctic research budgets to more than U.S. \$30 million annually in recent years. India has launched more than 30 scientific expeditions to Antarctica and 10 expeditions to the Arctic and Southern Ocean, according to Brady's article. In 2010, for example, Indian scientists made a 4,680-kilometer trek to the South Pole. Malaysia has also entered the Antarctic research arena, although its expenditures remain less than U.S. \$1 million annually.

The United States maintains the largest Antarctic research program, spending nearly U.S. \$300 million annually in addition to support provided by the

U.S. Department of Defense. For more than 50 years, the U.S. Defense Departments' Operation Deep Freeze has provided logistics support to National Science Foundation endeavors in Antarctica in the summer season, chiefly at its key South Pole stations McMurdo and Scott-Amundsen. The U.S. defense operation includes assets and personnel from all branches of the U.S. military and continues to be staged from Christchurch. Unlike China and South Korea, India's Antarctic science program also relies on its Navy and Air Force for logistical support. Australia is the second-largest investor in Antarctic research, steadily spending more than U.S. \$120 million each year.

"China, India, and South Korea's open obsession with gaining their share of the spoils of Antarctic wealth will pit them against many within the international community, not only those who crave access to these resources but also those who demand their exemption from exploitation in the name of protecting the world's last great wilderness," Brady, who



is also editor of *The Polar Journal*, continued in the 2012 symposium proceedings titled "Australia's Antarctica."

"Bearing this in mind, the four Asian economies' [including Malaysia's] increased participation in the Antarctic Treaty System should be seen as an opportunity for some much-needed reforms to make Antarctica more accessible to a wider range of states. Three other emerging Asian economies, Vietnam, Indonesia and Pakistan, have also expressed an interest in being active in Antarctica; but their lack of science expertise is holding them back. Currently Antarctic scientific programs are very nation-based," Brady wrote.

POLAR PRESERVATION

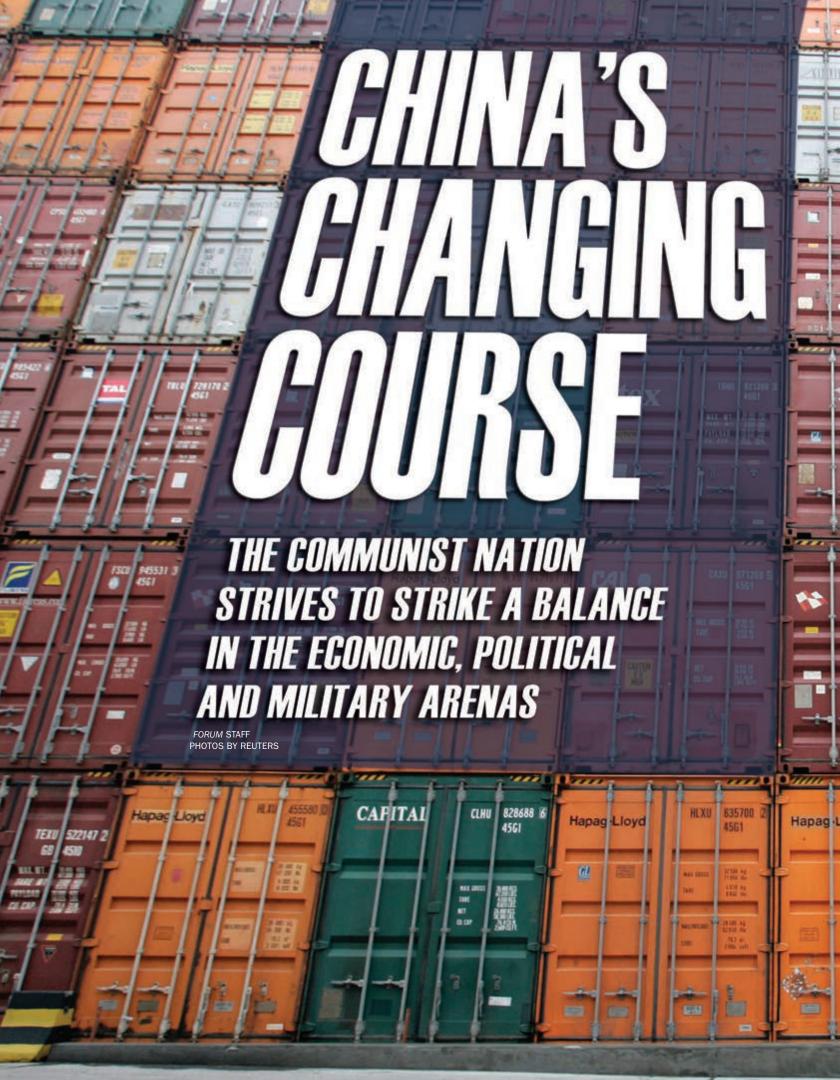
Concern is mounting that some nations, especially those with large energy needs, may place extraction and business opportunities ahead of the environment and other political considerations. "In the polar regions, China, as elsewhere, appears to be fixated on potential resource-acquisition — a major driver in China's current foreign policy. A second related issue is China's attitude on

the environment. In the polar regions, as elsewhere, China prioritizes development first and protection of the environment second," Brady wrote in "Polar Stakes: China's Polar Activities as a Benchmark for Intentions," published in the June 19, 2012, edition of The Jamestown Foundation's journal *China Brief*.

In the Arctic, few resources have been extracted to date. Oil, gas and mining companies, however, are mapping out potential sites for excavation. In light of the current level of attention and investment, polar politics are likely to play out in the northern region first.

Many stakeholders believe that Antarctica, with no native people, should continue as a natural reserve, devoted to peace and science exploration for all humanity, as China similarly stated regarding the Arctic. Though not bound by similar international agreements, the international community should closely monitor how the Arctic Council handles current concerns in the North and apply lessons learned to future probabilities when technology advances to a degree for profitable resource extraction in Antarctica. The world should heed the similarities — and differences — of these polar opposites. □

Australian researchers in the Southern Ocean, which surrounds Antarctica, tag an endangered blue whale with satellite tracking equipment in March 2013.





massive red and gray transport ship towers over workers at one of the many exceedingly productive shipyards in growth-obsessed China. Giant cranes cast looming shadows as metal workers scale the sides of the ship, and men in welding masks send sparks flying.

When their work is complete, the new ship will traverse the Pacific Ocean and dock in Australia to pick up a load of iron ore. The ship will then boomerang back to China, where the iron ore will be turned into steel, which will be used to make another ship, also destined to pick up iron ore in Australia. That's how the cycle goes, as illustrated in the documentary *The Biggest Domino* produced by Journeyman Pictures.

China's extraordinarily export-driven economic growth has both wowed and worried experts, who say the communist nation's lofty goals of prosperity are ultimately unattainable on its current course. "It's not at all practical, it's not logical, and it's not sustainable for such a large economy like China to depend so heavily on foreign demand for its goods," Michael Pettis, an economics professor at Peking University, explained in the documentary.

Thus, the Asian powerhouse has been changing course, looking to shift from its dependence on exports to boost internal consumption, raise wages and grow its service industries. The importance of this internal rebalancing is amplified by China's military buildup and recent change in leadership. The country as a whole is evolving, and the world is watching.

ECONOMIC EVOLUTION

The story of the shipyard is not unique. The supply chain and manufacturing strategy has propelled the Chinese model for economic growth. The 20,000 workers at the state-owned shipping business cranked out a ship every two weeks in 2010, according to the documentary. Across the nation, workers matched this frenetic pace, producing a variety of goods for global consumption. In 2011, China registered a 20.3 percent increase in exports from 2010, the state-run Xinhuanet.com news website reported.

But experts say that type of growth is not smart or sustainable. Chinese strategists agree. International demand for goods fluctuates, and a global downturn has dire consequences for export-dependent economies. In 2012, China felt the squeeze as its economic partners tightened their belts.

That year, for example, 38 percent of Chinese shipyards did not secure orders for new vessels, according to a report from ICAP Shipping International cited on Bloomberg.com. ICAP predicted the decline in demand could force China to shutter some of its shipyards. Overall, the nation's exports rose 7.9 percent in 2012, a large dip from the double-digit increase it posted just a year earlier, Xinhuanet.com reported.



The glimmering ghost town illustrates a basic challenge for China in its economy — striking the right balance between quantity and quality. The nation's future depends on it.



LOOKING WEST

FORUM STAFF

One potential shift in China's focus both for its economy and its military is the "March West" strategy proposed by Wang Jisi, an international relations expert at Peking University, in an October 2012 article in the Global Times. Wang put forth the idea that China should increase engagements with its western neighbors in Central Asia and the Middle East, where it can build military ties and trade agreements. The country's leaders are considering the strategy.

"The new Chinese leaders see an urgent task to break away from China's traditional confinement in East Asia," visiting fellow Yun Sun wrote in a January 2013 article for the Brookings Institution. "They wish to explore new territories and diversified options for China to continue its rise, and the West seems both feasible and promising."

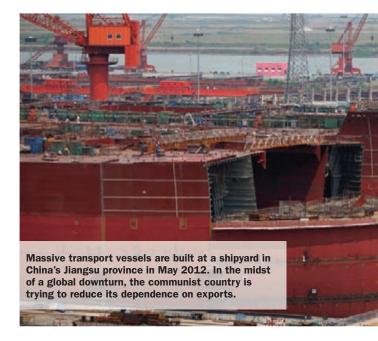
In late 2012, for example, Chinese and Afghan leaders signed agreements to strengthen economic and security ties between the nations. Then in 2013, the communist nation held its first consultation with Pakistan about the problems in Afghanistan. "The move signals a significant policy shift, from hands-off approach to active engagement to stabilize its turbulent neighbor," the China Daily Mail website reported.

The Middle East strategy could provide an avenue

for other partnerships as well, experts note. "The relationship between the U.S. and China would conceivably be more cooperative in the region, due to their common interests in economic investment, energy, antiterrorism, nonproliferation and regional stability," Sun explained. And countries that find themselves at odds with China over territorial disputes in the East may find reasons to cooperate on other fronts.

In the end, as China and other stakeholders in the region grow and evolve to meet internal demands and external expectations, avoiding confrontation and building strategic relationships could be the most practical strategies for stability, researchers suggest.

Andrew Leung, a Hong Kong-based specialist on China, summed up this possibility for partnerships in a commentary for the South China Morning Post in February 2013. "As the world has become not only multi-polar but much more interdependent, it raises the question of whether the traditional thinking of fixed alliances remains fit for purpose," Leung wrote. "It is conceivable that diverse groupings of states and nonstate actors, across ideological or political divides, could cooperate on an ad hoc basis to address common problems."



To better shield itself from external ebbs and flows, China is looking inward, aiming to balance exports with internal demand and stronger service industries. "The alternative for China is China itself," international business expert Victor K. Fung explained at the Institute for New Economic Thinking's annual conference in April 2013, according to Xinhuanet.com.

Decreasing Chinese exports could also provide opportunities for other countries in the region. "For India, a relatively more consumption-oriented China could mean higher exports, both to China and the rest of the world, lower commodity prices and less of a pressure from exporters for exchange rate intervention," economist Ila Patnaik wrote in an editorial for *The Indian Express* newspaper.

BEYOND THE NOW

Relying on Chinese consumers means increasing their purchasing power through better wages and more opportunities, experts say. In areas far from the urban clusters, inland and along the coast, that also means infrastructure development, which requires a delicate balance in itself. Like the shipyard manufacturing line, infrastructure development provides jobs, but eventually that infrastructure must be used for something, economists warn. Buildings without quality businesses and houses without people are as useless as ships without cargo, they say.

Nowhere is that more evident than in the now-famous ghost town of Kangbashi in China's Inner Mongolia region. There,





high-rise office buildings and apartments sit empty, yet construction marches on. News reports estimate that 30,000 people live in the district, which planners, at the outset of construction in 2004, intended to house 1 million.

Construction workers such as Yan Xincheng have been employed for years to build the high-tech metropolis. "When you look at it, this entire place looks like a giant free advertisement for developers," the former miner told *China Daily*. "There's no one around."

Investors have bought some of the homes in the district, but most don't live there. Meanwhile, inhabitants and renters trying to make Kangbashi their permanent home have struggled to make ends meet. Many can't afford to buy houses, and the lack of residents takes a toll on local service industries. "On bad days, we make only around 300 yuan [about U.S. \$50]," restaurant worker Zhang Caixia told *China Daily*. "Few people even bother to come here."

The glimmering ghost town illustrates a basic challenge for China in its economy — striking the right balance between quantity and quality. But the nation's future depends on it.

"Economic stability is not the only issue at stake," Patnaik warned in his editorial. "Political stability in China is a challenge as inequality has grown. If China does not follow a wider consumption-based growth model, the bigger challenge may be political rather than economic stability."

POLITICAL AND MILITARY CHANGES

China's political leadership is well aware of the intrinsic ties between a balanced economy and a stable society. "Our people have great enthusiasm in life," newly appointed Chinese leader Xi Jingpin said in a speech in November 2012, when he was named head

of the Communist Party and the Central Military Commission. "They hope for better education, more stable jobs, more satisfactory income, more reliable social security, medical services with higher standards, more comfortable living conditions and a more beautiful environment."

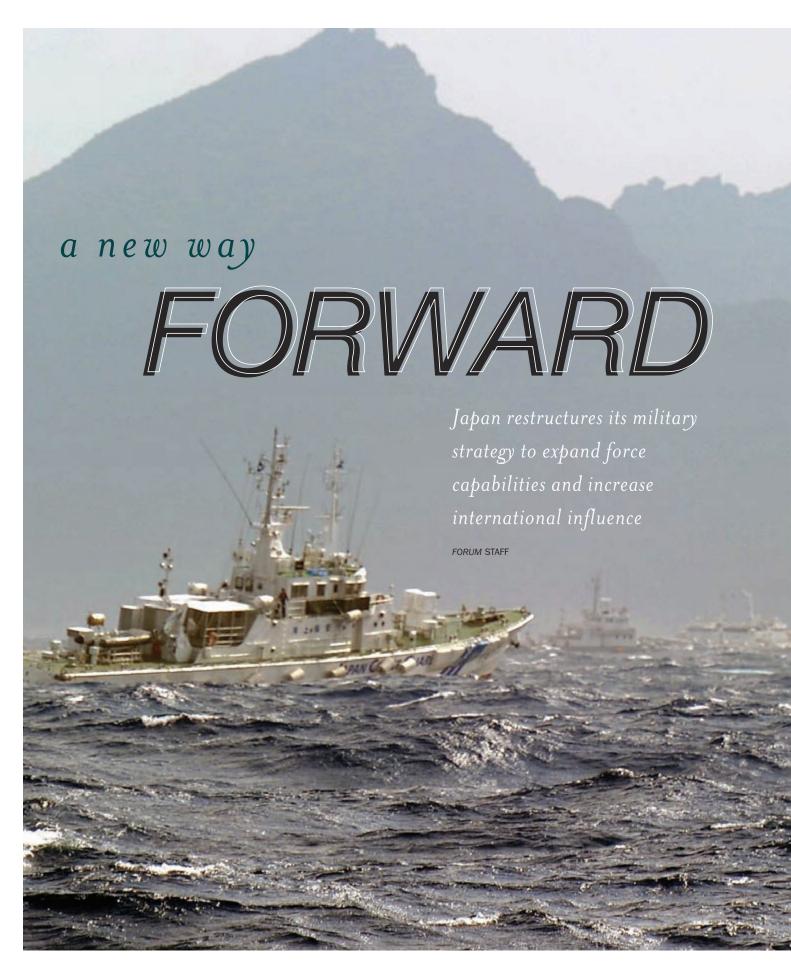
Xi's appointment came along with a massive changing of the guard in both the political and military realms, leaving much speculation as to how the country will progress under internal and external pressure during the next decade.

Although Xi has been more transparent about his approach to rebalancing his nation's economy than past leaders, China's military ambitions remain unclear. The country has revealed double-digit military budget increases during the past three years — 11.2 percent in 2011, 11.6 percent in 2012, then 10.7 percent in 2013, according to globalsecurity.org.

"Military expenditures reflect states' threat perceptions and reveal how they are planning for both immediate and long-term contingencies," David Lang wrote in the April 2013 issue of *Foreign Policy* magazine. China's ongoing territorial disputes with its neighbors have raised tension in the region, and its apparent military buildup with little public explanation has added fuel to the fire, experts say.

Generic explanations for increased spending include research and development, new weapon systems and personnel costs, *The New York Times* newspaper reported in 2012. But these explanations don't ease the minds of the international community.

"China needs more transparency and explaining to others," Chu Shulong, professor of international relations at the school of public policy and management at Tsinghua University, told *The New York Times*. "If you are not clear to others, they have suspicions." □





CHIEF CHAMPION OF CHANGE

The architect behind this national makeover: Japanese Prime Minister Shinzo Abe. "He has supercharged Japan's oncefearsome bureaucracy to make government vigorous again. And, with his own health revived, he has sketched out a program of geopolitical rebranding and constitutional change that is meant to return Japan to what Mr. Abe thinks is its rightful place as a world power," *The Economist* news magazine asserted in May 2013. "Mr. Abe is electrifying a nation that had lost faith in its political class."

The Economist noted that Japan's stock market had climbed 55 percent since Abe's December 2012 election, and he enjoyed a 70 percent approval rating.

Issues about the future of Japan's defense strategy emerged as Abe campaigned for election, vowing to move swiftly as the tides shift. "With the U.S. defense budget facing big cuts, a collapse of the military balance of power in Asia could create instability," Abe said, according to a December 2012 Associated Press report. "We must foster

Japanese Prime Minister Shinzo Abe reviews honor guards at the defense ministry in Tokyo in September 2013. AFP/GETTY IMAGES



an alliance with the United States that can hold up under these circumstances."

Japan has "one of the most sophisticated military forces in the world," The Associated Press reported, with 250,000

troops and the sixth-largest annual defense budget in the world. Its Navy is wellequipped, and its Air Force will gain dozens of F-35 Joint Strike Fighters during the next several years, adding to its fleet of F-15s.

"These are good, well-trained conventional forces," Narushige Michishita, who advised the Japanese government on defense issues and is the director of the security and international program at Tokyo's National Graduate Institute for Policy Studies, told The Associated Press. "We are second to none in Asia. So the idea is why don't we start using this. We don't have to start going to war. We can use it more effectively as a deterrent. If we get rid of legal, political and psychological restraints, we can do much more. We should start playing a larger and more responsible [role] in international security affairs."

BLAZING NEW TRAILS

Japan has wasted no time heading down this new path. In 2012, the country approved a U.S. \$2 million package for its military engineers to train Soldiers in Cambodia and Timor-Leste in post-disaster response such as best practices for rebuilding roads. Touting Africa as an engine for international growth, Abe announced in June 2013 a pledge of U.S. \$32 billion to Africa during the next five years for economic development, humanitarian assistance and implementing security and counterterrorism efforts.

"Africa will be a growth center over the next couple of decades until the middle of this century. ... Now is the time for us to invest in Africa," Abe said, according to a June 2013 BBC News report. "Japan will not simply bring natural resources from Africa to Japan. We want to realize industrialization in Africa that will generate employment and growth."

Part of Japan's investment plan will not



DRONE RACE

heats up in Sino-Japanese dispute

THE ASSOCIATED PRESS

China plans to use unmanned drones to conduct marine surveillance by 2015, as it tries to increase its presence around uninhabited East China Sea islands at the center of a dispute with Japan.

The planned deployment comes as fury in China over the Japanese government's purchase of the islands in September 2012 from a private Japanese owner continues to roil relations between the two nations. To help contain the fallout, Japan's vice foreign minister met with his Chinese counterpart for talks on the state of relations between the countries.

Li Mousheng, a spokesman for China's State Oceanic Administration, cited state media reports that said China aims to have drones and monitoring bases in place by 2015.

The reports didn't say when the drones would be deployed around the islands, called Senkaku in Japan and Diaoyu in China. China has been aggressively developing unmanned aircraft for both civilian and military purposes, with missions ranging from guiding missile strikes to monitoring grain crops.

Chinese outrage over the Japanese government's purchase of the islands in 2012 sparked days of sometimes violent street protests in scores of cities around China. Chinese consumers have since launched numerous informal boycotts of Japanese products, and China has dispatched government marine monitoring vessels to patrol around the islands.

only create jobs in Africa but also build infrastructure, the BBC reported.

Japan has even reached out to France to work on stability in the Asia-Pacific region. At a June 2013 summit, Japan agreed to work on nuclear exports and safety with the Visegrad Four regional cooperation framework, consisting of the Czech Republic, Hungary, Poland and Slovakia. Japan and India, likewise, have moved toward strengthening their partnership on nuclear safety.

MANAGING CONCERNS

Not everyone has eagerly lined up for the chance to work with Japan. In fact, China appeared less than pleased with Japan's latest maneuvers and discounted them in Chinese media reports.

"Although these actions taken by the Abe government are propagandized under the subterfuge that Japan wants to become a 'normal country,' a series of right-wing policies it has been pursuing have incurred worries and anxiety in the international community: If Japan keeps going down the path of right-wing policies with no brake, it will become a very destabilizing factor in the security of the Asia-Pacific region and bring up a greater danger to the region as well as the world," according to an article published in January 2013 by People's Daily Online, the website of the official newspaper of the Communist Party of China, and authored by two individuals associated with the National Defense University of the Chinese People's Liberation Army.

LINGERING TERRITORIAL TENSIONS

A territorial dispute sits at the heart of tensions between the two powers. The disagreement focuses on a chain of remote islands in the East China Sea, known to the Japanese as the Senkaku and to the Chinese as the Diaoyu. Japan's central government recently purchased the islands after previously renting them from a private Japanese owner. The Chinese also claim sovereignty over the islands and maintain they are a "core interest."

"Regarding the Senkaku Islands, which is under the valid control of Japan, we need to make them recognize that that current status of Japan's valid control cannot be changed by coercion or intimidation," Abe told *The Washington Post* newspaper during a February 2013 interview in Tokyo. "Such behavior is going to have an effect on their economic activity at the end of the day, because it will lead to losing the confidence of the international community, which will result in less investments in China. I believe it is fully possible to have China to change their policy once they gain that recognition."

Abe also stressed the importance of establishing rules to ensure "freedom of the sea" in the East China Sea and South China Sea.

"What is important, first and foremost, is to make



them [China] realize that they would not be able to change the rules or take away somebody's territorial water or territory by coercion or intimidation," Abe told *The Washington Post*. "Accordingly, for the first time in 11 years, I have increased our defense budget, as well as the budget for the Japan Coast Guard."

A Chinese Foreign Ministry spokeswoman downplayed China's role in flaring tensions with Japan, placing the blame on Japan instead.

"We hope the Japanese side will cease any provocative words as well as actions and make substantial efforts to help manage and resolve the issue through dialogue and consultation," spokeswoman Hua Chunying said in June 2013, according to China's staterun Xinhuanet.com news site. She called China's military strategies transparent and said the country poses no threat to any country.

"China adheres to a road of peaceful development and pursues a national defense policy with a defensive nature," she said.

LAYING A REBALANCE FOUNDATION Japan's new way forward will be anything

but a swift about-face on all accounts. Groundwork must be done to prepare the way for Abe's grand plan.

"We have just gone through a period when people in Japan felt extreme anxiety about national security," Yasuhide Nakayama, a lawmaker who heads Japan's Liberal Democratic Party's National Defense Division responsible for the recommendations, said in a *Wall Street Journal* report published in May 2013. "We believe we need to rebalance our basic policy."

Nakayama said a road map exists for Japan's full military makeover, *The Wall Street Journal* reported. The top goals in the plan include: investment in research and development for weapons technology, clarification on legal implications of the military's new focus and an official interpretation of the constitution, and creation of a dialogue with nearby Asian nations with concerns about the Japanese military revival. "Through diplomatic steps, we need to give careful and thorough explanation that we are talking about attacks strictly for the purpose of self-defense," Nakayama said. □

Japan Ground Self Defense Force troops participate in a drill at the training grounds near Tokyo in January 2013.

PENINSULA

PEACEKEEPERS

(THE REPUBLIC OF KOREA + THE UNITED STATES)

CONTINUE TO FORTIFY THEIR STRATEGIC DEFENSE ALLIANCE

FORUM STAFF

The U.S. and Republic of Korea (ROK) governments built an alliance following the Korean War that has resulted in 60 years of stability on the Korean Peninsula. The 1953 Republic of Korea-United States Mutual Defense Treaty has served as the foundation of the comprehensive strategic alliance that has evolved, endured and now extends beyond the realm of security, according to a May 2013 joint news release from the presidents of ROK, also known as South Korea, and the United States.









Left: A U.S. ship prepositions Navy vehicles and equipment off the coast of Pohang, South Korea, during a joint exercise with members of the Republic of Korea Marine Corps and Navy, U.S. Marines, U.S. Forces Korea and U.S. Coast Guard.

Republic of Korea Soldiers transport a U.S. tank on a pontoon bridge during a joint river crossing drill in Paju, north of Seoul, in May 2013. oday the two nations continue to leverage this alliance and resulting cooperative endeavors to foster peace and stability in the Asia Pacific. Moreover, the agility of the alliance is enabling the U.S. and South Korean governments to adapt to ever-changing security challenges, the presidents' statement said. "The freedom, friendship and shared prosperity we enjoy today rest upon our shared values of liberty, democracy and a market economy," the

statement said.

The Republic of Korea's military continues to develop its expertise and capabilities in preparation to assume the lead for defense of the country in 2015. Despite mounting threats from North Korea, U.S. President Barack Obama has reasserted that South Korea will take charge of allied forces should war erupt on the Korean Peninsula after that date. South Korean defense officials have said planning remains on schedule for the transfer in December 2015.

During a joint news conference with Obama in May 2013, South Korean President Park Geun-hye said that both countries continue to build on efforts to deter North Korea. In addition, they said the "transition of wartime operational control should proceed in a way that strengthens our combined defense capabilities and preparations being made toward that way as well."

Obama noted the two countries are continually modernizing their security alliance and investing in technologies and missile defenses "that allow our forces to operate and succeed together," according to a White House news release in May 2013.

RELOCATION GOALS

The relocation of the U.S. Forces Korea (USFK) from the greater Seoul metropolitan area and areas north of Seoul is key for both governments, according to the USFK Transformation and Restationing (T&R) website. South Korea will regain control of valuable and strategic land, a move that keeps with the country's long-term goals. To improve efficiencies, U.S. forces will centralize operations in two hubs around Osan/Pyeontaek and Daegu. The consolidation will minimize the military presence in the community. The new hubs will also enhance U.S. readiness and capability to support the ROK.

U.S. forces "enjoy a great alliance and friendship with the Koreans, and this is a fine example of how the U.S. and ROK work together, support each other and plan to win together," according to the USFK T&R website.

Some parts of the realignment relate to the Land Partnership Plan, which aims to promote public support for the alliance by addressing local communities' demands for land, USFK

The agility of the alliance is enabling the U.S. and **South Korean** governments to adapt to ever-changing security challenges

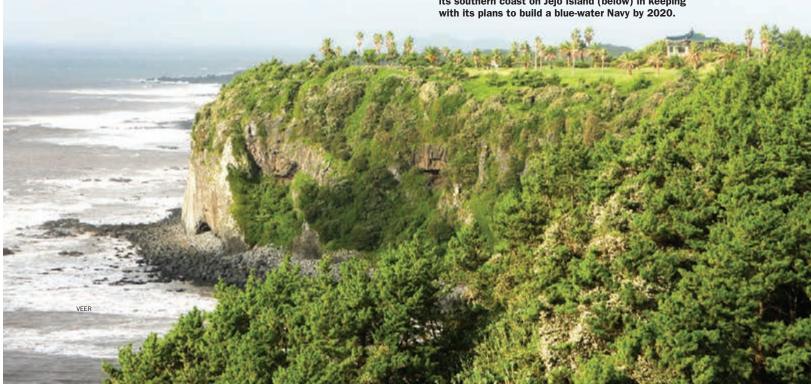
says the plan enhances public safety and bolsters the alliance by minimizing U.S. use of ROK-granted land and increasing joint use of ROK training areas.

ENHANCED POWER

Even with U.S. realignments and force reduction, the alliance expects to see an increase in combat power through "highquality shared awareness, dynamic selfsynchronization, dispersed and demassed forces, deep sensor reach, compressed operations and rapid speed of command," Chang-hee Nam, associate professor at Inha University in South Korea, explained in his paper "How Do Allies Deal with U.S. Military Transformation?" The U.S. has promised force enhancements to compensate for force reduction and realignment. These are mainly composed of weapon systems for enhancing battlefield awareness, an automated C4I system, and precision deep-strike and rapid mobility capabilities, the professor explained.

Looking to the future, the U.S. and ROK continue to build their alliance for the good of the Korean Peninsula. The alliance has grown stronger each day for the past 60 years, and the future only holds an even stronger partnership between the two countries.

The Republic of Korea is building a naval base off its southern coast on Jejo Island (below) in keeping with its plans to build a blue-water Navy by 2020.



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JPAC PUBLIC AFFAIRS
PHOTOS BY SGT. MICHAEL CARTER/U.S. ARMY

Burma and the U.S. work together to recover fallen World War II heroes

The reopening of Burma's borders and the reforms undertaken by the government have generated a nonstop flurry of visitors to the nation, including foreign leaders, diplomats, celebrities and tourists. After a nine-year hiatus, U.S. military investigators also returned in February 2013 to renew their search for the remains of U.S. Soldiers lost in Burma during World War II. Such field activities were suspended in 2004 due to internal instability and international sanctions.

"We're very grateful to the government of [Burma] for opening up its borders and partnering so our remains-recovery people could come and look for our people who were left behind decades ago," Derek Mitchell told the *Stars and Stripes* newspaper in March 2013. U.S. President Barack Obama appointed Mitchell as U.S. ambassador to Burma in July 2012 after the post had remained vacant for 22 years. "It's also a very good first step in our engagement with the military here and with the Defense Ministry and others. We want to build understanding, build ties, as we go."

Joint Prisoner of War (POW)/Missing in Action (MIA) Accounting Command (JPAC) investigators estimate the remains of 730 U.S. MIAs from World War II may still be found in the China-Burma-India theater. Headquartered on the island of Oahu in Hawaii, JPAC conducts global search, recovery and laboratory operations to identify Americans who were unaccounted for during past conflicts. JPAC's humanitarian missions support the U.S. Department of Defense's personnel accounting efforts. Each year, JPAC deploys 60 to 70 teams to more than a dozen countries worldwide at sites scattered from the South Pacific to Europe.





ALLIED CARGO ROUTES OVER BURMA DURING WORLD WAR II NEPAL NEPAL

Japan had shut down China's supply routes through Burma. To keep the Chinese military supplied, the Allied forces flew thousands of cargo flights from India to China over the Himalayan mountains. The route, known as the "Hump," often proved deadly because of challenging weather conditions and a lack of reliable navigation aids. Allied planes mainly flew the "High Hump" route, over mountain ridges that climbed as high as 4,600 meters, until May 1944 when the Allies secured the lower altitude "Low Hump" route for regular use. JPAC data reveal that nearly 1,000 men and 600 planes never made it across the Hump.

During this crucial point in the war, cargo planes

During this crucial point in the war, cargo planes also dropped supplies and munitions to Allied troops in northern Burma. Pilots on these sorties often faced squadrons of Japanese fighter planes that flew from Myitkyina, the capital of Kachin state. After the Pacific War ended in August 1945, search missions began for missing warriors. Searchers recovered the remains of nearly 1,400 U.S. Soldiers, JPAC data show. The searches ceased four years later in 1949.

Burmese Support

Fast-forward to spring 2013. "What's been most exciting is the response from the people. ... They are very willing to speak to us," said Nicole Rhoton, a JPAC World War II historian who was part of the investigation team that traveled to Burma several times in 2013. "Whether it's a chairman of a village or an actual eyewitness ... they were very willing to speak to us and were very hospitable. I think that's just how the people are culturally. That's always a positive experience."

JPAC had last sent teams to Burma in 2003 and 2004. As a result of those operations, investigators made seven identifications from remains found at a crash site about 45 kilometers northwest of Myitkyina, according to Rhoton. Many leads still needed to be traced and researched, Rhoton said. Until now.

An advance team went out in January 2013 to prepare for the investigation activities in February and May and to start an outreach campaign to get leads from the public. "Getting back into the area after several years is a huge success for us," said Johnie Webb, JPAC deputy to the commander for external relations and legislative affairs. "The three visits last spring have set the tone for us to continue searching."

The notices JPAC ran in Burmese newspapers with the hotline phone number yielded more than 1,000 leads, according to Webb. Of those leads, JPAC historians are tracking 350, which may correlate to research currently underway. "The hotline started during the tail end of March and ended the last week of May," said Rhoton. One of the calls led to a witness who was able to give more information than expected. "We interviewed a guy who was 101 years old," Rhoton said. "So he fought with the Japanese and with the British when Burma switched sides. He gave us information about air crash sites we were not even tracking."

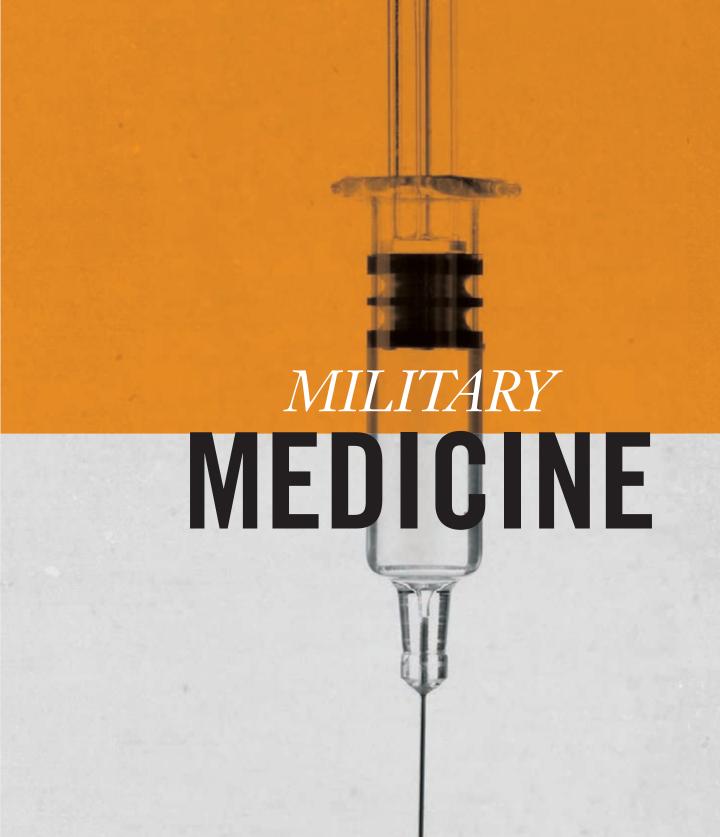
The Burmese military has supported JPAC efforts. "They have helped us even with our interviews" and with bridging the cultural gap, Rhoton explained. "Basically they paid attention to how we did our work in February and would help facilitate by asking the same types of open-ended questions to witnesses, which helped us out tremendously in May," Rhoton said. "So it definitely showed a progression in the relationship we had with them."

Returning to Burma

The road for JPAC's return to Burma began in December 2011 when then-U.S. Secretary of State Hillary Clinton visited Burma. During her meetings, she included discussion about efforts to recover remains of Americans lost there during World War II. In April 2012, Maj. Gen. Stephen Tom, then JPAC commander, traveled to Yangon and Naypyidaw to meet with Burmese officials about resuming JPAC activities.

In November 2012, President Obama visited Burma and opened the door for increased U.S. interactions including humanitarian military efforts such as the search for remains of missing U.S. service members. Such ongoing humanitarian interactions between the two militaries, according to professor Ian Storey, a senior fellow at the Institute of Southeast Asian Studies in Singapore, "will help forge professional relationships and foster habits of cooperation, which will be invaluable in helping the two armed forces understand each other better." □

FORUM ILLUSTRATION



HIV VACCINE

RESEARCH CENTER OF EXCELLENCE OPENS IN BANGKOK

LT. COL. VISETH NGAUY/ARMED FORCES RESEARCH INSTITUTE OF MEDICAL SCIENCES

n the war against HIV and AIDS, the Armed Forces Research Institute of Medical Sciences (AFRIMS) is a famed warrior. Founded in Bangkok more than 50 years ago, the joint U.S.-Thai military medical research institution first proved that an AIDS vaccine is possible in a study published in 2009.

In the clinical trial of more than 16,000 adult volunteers, AFRIMS researchers demonstrated that the RV144 vaccine offered modest protection against HIV, reducing the risk of infections by 31.2 percent. In Thailand, this landmark study highlighted the successful and close collaboration among AFRIMS, the Thai Ministry of Public Health and Mahidol University in Bangkok.

AFRIMS' leadership in scientific research and surveillance of infectious disease of military importance in South and Southeast Asia continues to grow. In December 2012, Thai and U.S. officials opened an HIV Vaccine Research Center of Excellence in the heart of Bangkok to continue supporting clinical trial efforts within AFRIMS' Department of Retrovirology. The rising HIV epidemic in Thailand during the 1980s and 1990s provided the U.S. Army with the opportunity to conduct clinical research for the development of a safe and globally effective HIV vaccine. The Department of Retrovirology, created in 1992, remains an international leader in the field of HIV vaccine research.

To fulfill this task, the department evaluated the scope of the epidemic and established cohorts in preparation for a series of HIV vaccine clinical trials. The department closely collaborated with the Royal Thai Army Medical Department and local academic institutions, such as Chiang Mai University, Siriraj Hospital and Mahidol.

The new center of excellence consolidates many of the laboratory activities conducted by the Department of Retrovirology and the Royal Thai Army. The AFRIMS Research and clinical laboratory performs HIV diagnostic testing and eligibility and safety tests for clinical trials. The molecular, humoral, cellular and

A Thai scientist at the Armed Forces Research Institute of Medical Sciences works on a project linked to finding a vaccine to help troops.



U.S. MILITARY HIV RESEARCH PROGRAM

nonhuman primate labs conduct basic science research and perform immunomonitoring for the clinical trial to probe the epidemiology and molecular characteristics of the HIV virus and to access the host's cellular, humoral and innate immune responses to natural infection and vaccine challenge.

The specimen processing and archiving laboratory occupies the largest section in the center of excellence. Here, researchers process all samples collected from clinical trials, including blood, urine, saliva, cerebrospinal fluid and mucosal specimens, and the lab provides archiving, data management, monitoring and storage for up to 100 freezers. The Department of Retrovirology shares this space with the Royal Thai Army Medical Department. The Royal Thai Army laboratories include a serology, veterinary medicine, histopathology and processing laboratory.

Although the department's primary focus remains the development of an effective HIV-1 vaccine, it also engages in regional activities to provide technology transfer through the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) through quality assurance and quality control support. The program in Vietnam supports eight Ministry of Defense laboratories providing HIV diagnostic testing, clinical labs and blood banking services for military hospitals receiving PEPFAR funding in Hanoi, Da Nang, Ho Chi Minh City and Can Tho.

The success of the RV144 study spurred a flurry of scientific and clinical activities within the department and between Thai and international collaborators. Results of these intensive immunologic evaluations of the RV144 samples led to the discovery of a potential correlates of risk that may guide vaccine development efforts. Researchers are planning a trial in Thailand to improve on the RV144 result and extend its relevance to at-risk populations to achieve the greatest public health impact. This trial aims to improve and prolong the level of protection seen in RV144 by using an extra vaccine boost and better adjuvants (a substance that can enhance the immune response to a vaccine).

The department is completing an intensive clinical study known as RV305, which began in April 2012 in Thailand, to evaluate reboosting in volunteers who participated in the RV144 study. Preliminary data were scheduled to be presented at an international conference in fall 2013. Another clinical study, RV306, will begin in 2013 and use the RV144 vaccine regimen to compare additional vaccine boosts and gather more immunogenicity data in 360 new volunteers. The AFRIMS Department of Retrovirology, along with the U.S. Military HIV Research Program, the National Institutes of Health and international collaborators, will continue to pursue the goal of developing a globally effective HIV vaccine to assist in the eventual eradication of HIV/AIDS. For more information, visit www.AFRIMS.org. □

Maintaining

THE Indian Ocean Region

ADM. D K JOSHI/INDIAN NAVY

INDIA'S CHIEF OF THE NAVAL STAFF OUTLINES THE NAVY'S ROLE DURING A SPEECH AT THE INSTITUTE FOR DEFENCE STUDIES AND ANALYSES



To discuss challenges to peace and stability, an examination of the historical and contemporary significance of the Indian Ocean would be in order.

The Indian Ocean has probably affected humanity more profoundly than any other ocean. Through the continuum of history, this region has been significant in geopolitics and in the evolution of mankind.

Some of the world's oldest civilizations germinated here and,

for several millennia, flourished in the region's abundant natural wealth. Major religions such as Hinduism, Buddhism and Islam originated here and fanned out to rest of the world, mostly through sea routes, making the IOR [Indian Ocean Region] a melting pot of myriad societies. Hindered by natural barriers on the continental landmass, the interaction between cultures took place over the sea, predominantly through benign expeditions and trade.

The region's economic potential thus attracted extraregional players. Initial ventures, driven by pure mercantile interests, then gave way to colonization of most of the region. The Industrial Revolution further escalated the region's significance, with the colonies doubling up as sources for raw materials, cheap labor and captive markets for imperial Europe's industrial

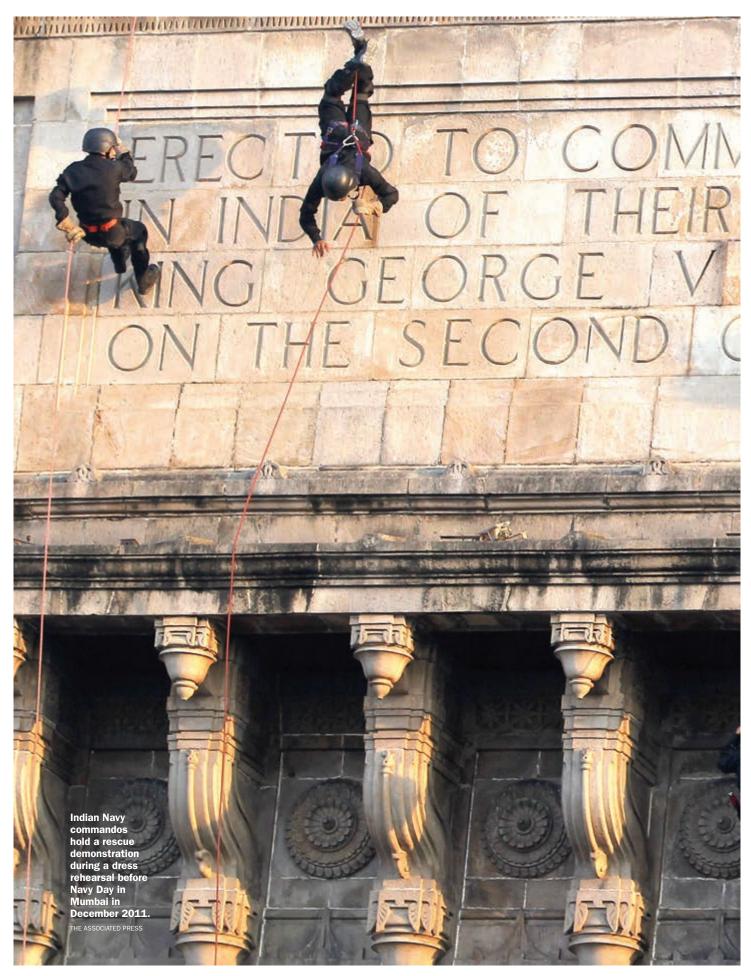
output. The colonial period also influenced geostrategy of the region in an unprecedented manner. The IOR, thus, became an arena for military competition, with European blue water navies vying for control of its waters. This, in a way, led to evolution of the IOR as a common geostrategic entity.

Although imperialism ended after World War II, extraregional interest in the region continued to grow, due to competition for resources, most notably hydrocarbons, and for domination of vast markets. Through the Cold War, extraregional powers competed to expand their influence in the IOR, leading to many proxy wars.

The end of the Cold War was a watershed in geopolitics, with a paradigm shift in how nations view peace, security and national power. Concepts such as comprehensive security have displaced a hitherto narrow military-centric approach.

"Peace," in a comprehensive security framework, goes beyond the mere absence of conflict and encompasses military, economic, societal, energy and environmental security, among other factors. For instance, the National Security Index envisages a combination of many diverse, yet interrelated factors, centered on economic prosperity, which in turn provides the wherewithal for all national endeavors.





THE MARITIME CONNECTION

The Indian Ocean Region, comprising the ocean and its littorals, is India's regional or immediate geostrategic environment. It exists on the fringes of our boundaries and has [an effect] on the internal state of affairs. Addressing the Combined Commanders' Conference recently, the Honorable Prime Minister, Dr. Manmohan Singh, had stated: "Our immediate geo-strategic environment comes with its own conventional, strategic and nonconventional security challenges. India's strategic calculus has long encompassed the waters from the Gulf of Aden to the Strait of Malacca."

The Honorable Prime Minister's statement has a distinct nautical flavor. In a way, it defines the Indian Navy's primary area of maritime interest, where we seek to address the challenges having a bearing on national security and the nation's overall socioeconomic development.

Sustained growth has positioned our country on the path to economic eminence. We are already the third-largest economy in purchasing power parity terms. Our ability to fulfill the stated socio-economic aspirations squarely rests on unhindered prosperity. With substantial economic activity, including 90 percent trade by volume and bulk of our energy imports, happening over the sea, maritime security is central to overall development of our nation. Concurrently, India cannot hope to develop and grow peacefully with an unstable and turbulent neighborhood. Prevalence of peace in the Indian Ocean Region is therefore a key national security imperative. We achieve this through a combination of diplomatic, economic and military means, all of which have a maritime connect.

COOPERATIVE APPROACHES

Security challenges ranging from pandemics to proliferation of weapons of mass destruction, from piracy to terrorism, and from climate change to money laundering confront all nation-states. This has engendered a cooperative approach to security, especially in the maritime domain, where majority of global economic interests get intertwined and to which a majority of the challenges to security are associated.

Riding on the benefits of globalization, littorals of the IOR are now re-emerging to achieve their original potential. The emergence of many regional countries as economic powerhouses reflects this reality. Consequently, several regional economic groupings such as ASEAN [Association of Southeast Asian Nations], BIMSTEC [Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation], SAARC [South Asian Association for Regional Cooperation], IOR-ARC [Indian Ocean Rim Association for Regional Co-operation], GCC [Gulf Cooperation Council] and few others have evolved over time in the IOR to harness the advantages of economic integration.

The region's natural bounties and maritime trade carried over its sea lanes drive the global economy. The fact that two-thirds of the world's oil shipments, one-third of its bulk cargo and half of the container traffic transit over its sea lanes, and through its choke points, a large part of which is meant for countries outside the region, underscores the Indian Ocean's importance for the world at large.





Indian Navy personnel participate in an exercise onboard Indian Navy Ship Viraat in the Arabian Sea off the coast of Mumbai. THE ASSOCIATED PRESS

CHALLENGES AHEAD

The IOR at the same time is also marred by historic fault lines, in some cases, due to ambiguous colonial boundary delineations and inequalities that breed instability. The centrality of the "ocean" in the region's affairs is further underscored by the fact that problems on land invariably find a reflection at sea. I shall now touch upon some key maritime challenges that endanger peace and stability in the IOR.

The foremost challenge obviously emerges from interstate armed conflicts. Most of the armed conflicts in the post–World War II era occurred in the IOR, underscoring the region's geopolitical fragility. West Asian conflicts, South Asian conflicts, Iran-Iraq war, the Gulf Wars, Afghanistan — the list is long.

While economic interests may initiate extra-regional military presence in these waters, at times, the presence itself may escalate contest and competition. Armed conflicts impinge upon regional peace in decisive ways, given the region's delicate socio-economic structure. Peace ultimately returns, but not without costs in terms of widespread destruction, human suffering, financial losses and consequential regional instability. It dents the conducive, external environment necessary for a nation-state to develop and grow peacefully.

More than armed conflicts, currently what complicates security dynamics is the array of nonconventional threats perpetuated by nonstate or even state-sponsored actors. There are several reasons for this security conundrum.

Firstly, these threats are omnipresent. Weak governance

or the absence of governance in some littorals has allowed the state to lose its "monopoly on the use of legitimate force." The resultant anarchy on land manifests itself as lawlessness and nonconventional threats at sea. The flourishing piracy off Somalia and the terror attacks on USS Cole and MV Limburg are a few such examples.

Secondly, these threats are amorphous, with an uncanny ability to evolve, thus challenging established security structures. Maritime piracy, which, until a few years ago, was mainly limited to armed robbery at sea, has now evolved into criminal acts, orchestrated by well-organized global crime syndicates. Pirates today are well armed and capable of striking over 1,000 miles [1,609 kilometers] from the coast. Hijacking of ships for ransom, amounting to millions of dollars, is also a relatively new practice. Besides the economic and humanitarian dimensions of piracy, its evolving links with terrorism, and states supporting terror outfits, compound the problem.

Then there is the legal aspect. Evolving threats such as piracy, hijacking of merchantmen, suicidal terror attacks, proliferation of WMD [weapons of mass destruction]-related material, *et al.*, expose the inadequacy of current national and international laws and conventions to deter them or deal with them effectively.

While maritime piracy and maritime terrorism are more obvious, there are other nonconventional challenges, such as illegal arms trade, drug and human trafficking, poaching, etc., which continue to engage our attention and resources on a regular basis.

ECONOMIC INTERDEPENDENCE

As stated earlier, economic security is central to the comprehensive approach to security. In this globalized world, the Indian economy is integrated with, and consequently interdependent on, other world economies. The prospect of disruption of trade at critical chokepoints, such as the Strait of Hormuz or Malacca, can be catastrophic for the global economy. The downstream effects of such economic upheaval are certainly disastrous for regional peace. Maintaining unimpeded flow of energy and other commodities over the sea is therefore a prime concern for all nations, including ours.

Growing economies need additional space to exploit resources. With the resources on land already under pressure, exploration would perforce have to expand into the maritime domain. Thus far, the exclusive economic zones [EEZs] have mainly been exploited by coastal states for shallow water extraction of hydrocarbons and seafood. The focus is now shifting to the vast mineral resources from deeper waters. Besides the technological challenges involved in seabed mining, the need for long-term protection of such resources and associated infrastructure becomes another security consideration. Blocks allocated to India and some other countries in South Indian Ocean for deep-seabed mining become factors for consideration, in this regard.

Human security holds special relevance in the maritime domain. More than half of humanity lives within 200 kilometers of the coast, which accounts for only 10 percent of the available landmass. It is also this thin slice of land that bears the brunt of maritime natural disasters such as tsunamis, cyclones and floods. The IOR alone is the locus of nearly 70 percent of the world's natural disasters, the consequences of which are further aggravated by high population densities and the lack of capacity to react effectively in their aftermath

Most of the armed conflicts in the post—World War II era occurred in the Indian Ocean region, underscoring the region's geopolitical fragility.

NAVY'S VISION

Having dwelled on a broad range of maritime challenges, I shall now outline the Navy's vision and endeavors in meeting them.

Famous maritime historian K M Pannikar, in one of his seminal works, had stated: "The vital feature which differentiates the Indian Ocean from the Atlantic or the Pacific is the subcontinent of India, which juts out far into the sea for a thousand miles. It is the geographical position of India that changes the character of the Indian Ocean."

India's geo-strategic location positions us right at the confluence of major arteries of world trade. The Indian Navy is therefore viewed by some of the littorals as a suitable agency to facilitate regional maritime security in the IOR as a net security provider. India's standing as a benign power provides credence to this perception, making us a preferred partner for regional security.



The first means of maintaining peace is, of course, the prevention of armed conflict. Our own experience during Operation Vijay (Kargil Operations) bears testimony to the utility of strong maritime forces in dissuasion and control of escalation. The Indian Navy's posture in the North Arabian Sea contributed significantly to the early achievement of India's operational goals and, more importantly, in limiting the scope of the conflict.

Our perspective plans are centered on building not just our force structure but capabilities to meet the identified and emerging challenges. However, neither do we intend, nor is there a need to match numbers with any other country. Instead, we are focused on creating capabilities and leveraging our strategic geography to assert and defend our sovereign interests in the maritime domain. With modern aircraft carriers, along with potent surface, subsurface and air platforms, we have a balanced force capable of undertaking a range of operations, from the brown to the blue waters, and also contribute to regional security.

Military intervention, in support of friendly nations at their request or under the aegis of the United Nations, is also an option for conflict prevention and crisis resolution. When mercenaries attacked and took control of Male in November 1988, our prompt politico-military response, as part of Op Cactus, remains etched as one of India's most successful operations in support of regional stability. The Indian Navy has also made significant contributions during Operation Pawan in Sri Lanka and U.N. operations in Somalia.

SECURITY PARTNERSHIPS

Another dimension to promoting peace is through cooperative security. The Navy discharges this responsibility through a broad spectrum of cooperative and inclusive endeavors. These encompass coordinated operations, bilateral exercises, security assistance and military-to-military dialogue.

Preserving good order at sea and ensuring security of international shipping lanes in the IOR is another duty of the Navy in the interest of the global commons.

The MV Alondra Rainbow incident of November 1999, culminating in the capture of the hijacked vessel, along with pirates, was the first major anti-piracy operation undertaken by the Navy. We also undertook anti-piracy patrols in the Strait of Malacca when piracy was thriving there a decade ago.

In the East, we undertake bilateral coordinated patrols, or simply CORPAT, with Thailand and Indonesia, which address a range of maritime security issues. Plans exist to include Myanmar in this endeavor. India is also a party to ReCAAP, or Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia, a government-to-government agreement on antipiracy cooperation and information sharing. The fact that the menace of piracy has largely been controlled in Southeast Asia bears testimony to the strength of a cooperative approach.

In more recent times, the Indian Navy has been at the forefront of anti-piracy operations in the Gulf of Aden since October 2008. Our ships and aircraft have seen sustained prolonged deployments, escorting Indian as well as foreign-flagged ships. Our robust actions, such as the sinking of four pirate mother ships in 2011, have deterred piracy close to the Indian coast. The dealings clearly signaled India's resolve to curb this menace. Since then, no successful pirate attack has been reported within 450 nautical miles of our coast. Similarly, in the Gulf of Aden, no ship under our escort has been pirated during the last four years. Over 2,400 ships have been escorted by Indian Naval ships, 40 piracy attempts foiled by us and more than 120 pirates arrested.

While we deploy forces independently in the Gulf of Aden, our actions are nevertheless underlined by a cooperative approach. We coordinate our operations with other Navies and regularly exchange information through participation in cooperative mechanisms such as SHADE [Shared Awareness and Deconfliction]. I must also highlight that the 13th Plenary Session of the Contact Group on Piracy off the Coast of Somalia (CGPCS) was held at the U.N. headquarters in New York in December last year under India's chairmanship.

SEEING RESULTS

Of late, there have been many encouraging signs. Thanks to concerted international efforts, there has been a declining trend in pirate activity since 2011. It merits reiteration that piracy is a manifestation of larger problems ashore. Therefore, as long as poor governance continues in coastal states, lawlessness and piracy will prevail at sea and engage much of our efforts.

Maritime terrorism is another grave challenge. The events of 26/11 [the 2008 Mumbai terrorist attacks] brought to fore the porosity of our long coastline and its resultant vulnerability to terror attacks perpetrated from the sea. Moreover, the prospect of terror attacks on offshore infrastructure and seaborne traffic, close to the coast, puts a premium on ensuring coastal security. Consequent to government directives, the Navy is now responsible for overall maritime security of the country, including the coast. A comprehensive coastal security framework, involving a number of organizational and materiel measures, has been created. The setting up of joint operation centers, raising a dedicated force for coastal security (Sagar Prahari Bal), creating a network of coastal radars and AIS [automatic identification system] chains, are all meant to enhance our maritime domain awareness close

On request, we also deploy assets to undertake EEZ surveillance and anti-piracy patrols for some of our neighbors. We are cooperating with several IOR nations in the installation of coastal radars and AIS chains to enhance domain awareness. In addition, our continuing assistance in terms of hydrographic surveys, technical assistance and product support are of great value to our

Preserving good order at sea and ensuring security of international shipping lanes in the Indian Ocean region is another duty of the Navy in the interest of the global commons.



Suspected pirates raise their hands as they are apprehended in the Gulf of Aden. REUTERS

maritime neighbors. Our foreign cooperation initiatives are aimed at their capacity building and capability enhancement. Several IOR nations are currently the focus of our cooperative policies.

For many years now, training initiatives have constituted the cornerstone of the Navy's interaction with friendly Navies. Besides offering training opportunities at our professional institutes, we also depute our training teams abroad. Furthermore, bilateral operational exercises constitute important avenues for maritime diplomacy as well as capacity building. The Indian Navy regularly exercises with regional and extra-regional Navies on a range of military, constabulary and benign functions, including counterpiracy, counterterrorism, humanitarian assistance and disaster relief [HADR], etc.

As regards human security, the Indian Navy already has rich experience in HADR. It may be recalled that in 2004, within hours of being hit by the tsunami, we had dispatched several ships and aircraft across the Indian Ocean to provide assistance to our neighbors while coping with the disaster ourselves. This vividly demonstrated our operational

capability and commitment to the region. The Navy continues to remain ever prepared to respond swiftly in any similar unfortunate eventuality in the future.

FORUMS FOR DIALOGUE

In addition to operations and exercises, dialogue forms a key avenue for strengthening military-to-military relations. When nations cooperate militarily against common threats and challenges, it enhances mutual trust, thus reducing avenues of conflict. We engage 15 Navies in institutional naval staff talks, and prospects exist for adding more.

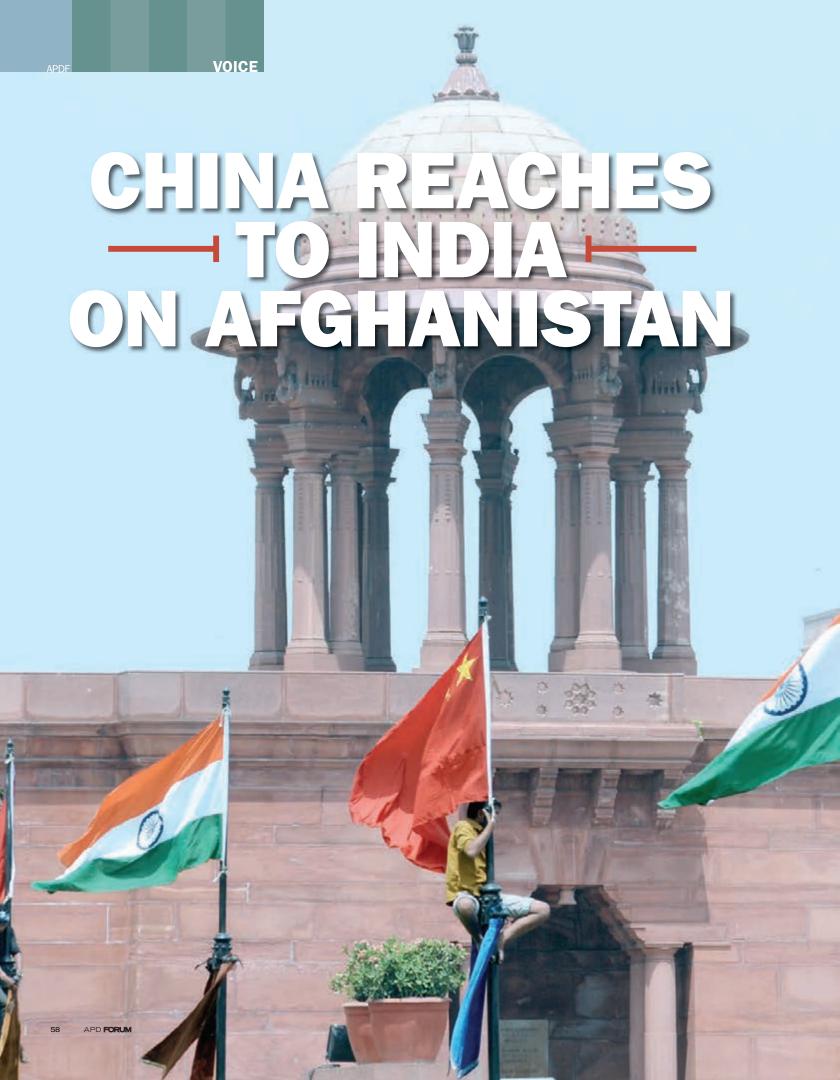
The Indian Ocean Naval Symposium (IONS), an inclusive forum comprising the Indian Ocean Navies, is one such landmark initiative, which we are proud to have pioneered. Since its inception in 2008, IONS has grown from strength to strength, and today it has 35 member Navies from across the region. This endeavor has led to establishing and promoting consultations and cooperation amongst various participants and is also facilitating evolution of a common set of strategies to enhance regional maritime security. The Indian Navy continues to make seminal contributions to this initiative. We have taken the lead in establishing the IONS website last year, and this year, we would be conducting a workshop at Mumbai on the topic "Role and expectations of emerging Navies in cooperative engagement for peace and stability in IOR." This, in a way, captures the very essence of my talk today and also the Navy's strategy for maritime diplomacy and security cooperation in the region.

During my talk, I have outlined only the major maritime challenges and some of our important endeavors. There are many more. For a planet with more than two-thirds covered by the water, the destiny of humanity is inextricably linked to the sea, more so, in a globalized world. Conversely, the surrounding human activities in the littoral also influence the maritime environment in myriad ways.

In conclusion, maintenance of a peaceful maritime environment is an imperative, for our nation and the region, to sustain our growth trajectories and to achieve our national aspirations. The oceans are vast, challenges too many and resources limited, for any individual state to assure security of the global commons. This, therefore, calls for a cooperative approach. By virtue of India's geo-strategic location in the Indian Ocean and her maritime capabilities, the Indian Navy is deemed by many to be the net security provider in the IOR.

A cooperative and supportive approach is central to our endeavors. Mindful of the region's strategic importance for India, and the world, we are marshaling our capabilities and efforts to promote regional security in concert with other stakeholders. At the same time, being aware that cooperation coexists with competition, we also remain watchful and committed to prevent the IOR from becoming an arena for another round of extra-regional military contestation.

This speech was delivered by Adm. D K Joshi in March 2013 at the Institute for Defence Studies and Analyses in New Delhi. It has been edited for length. For more on the institute, go to www.idsa.in.





he counterterrorism dialogue between China and India finally took a serious turn in 2013 as the two sides discussed the issue of Afghanistan for the first time. The impending departure of Western combat forces from Afghanistan and the specter of looming chaos seem to have persuaded Beijing that it cannot ignore the "Af-Pak" challenge forever. The two sides decided to initiate a long overdue dialogue on Afghanistan, which took place April 18, 2013, in Beijing.

The Sino-India counterterrorism dialogue, which has been held annually since 2002, was initially viewed as a promising bilateral initiative for dealing with the threat of terrorism. But these hopes were quickly laid to rest as nothing of consequence emerged from these dialogues. The reason is not difficult to decipher. For India, the main source of terrorism is Pakistan. ... For China, Pakistan is an important asset in its South Asia policy

and an "all weather" friend. As a consequence, although New Delhi had, somewhat audaciously, expected to make common cause with Beijing vis-à-vis Islamabad and Rawalpindi, there was only disappointment at the outcome of these dialogues.

But as concerns are rising in the region about the consequences of the withdrawal of NATO forces from Afghanistan in 2014, China is showing some nascent interest in coordinating with India on this





Chinese paramilitary police march past the gates of the Indian Embassy in Beijing in May 2013.

Indian Army personnel stand watch at Bum La Pass at the India-China border in Arunachal Pradesh in October 2012.

Chinese Defense Minister Liang Guanglie inspects an honor guard in New Delhi in September 2012.

issue. There is a clear convergence between China and India because both states have made major investments in Afghanistan since 2002.

The impact of Afghanistan's destabilization will be felt not only in Kashmir but also in Xinjiang, where the East Turkistan Islamic Movement is leading a separatist movement. China has also indicated that it is not sure if Pakistan's security establishment actually continues to exert influence over the Taliban and other extremist groups, given the rapidly deteriorating security situation in Pakistan.

China and India both have reiterated that a regional approach is necessary in order to maintain peace and stability in Afghanistan after the departure of Western combat forces. According to some reports, the two sides have agreed to support the Shanghai Cooperation Organization (SCO) to play a greater role in Afghanistan and discuss anti-terror cooperation within the framework of the Istanbul Process agreed upon in 2011. Toward that end, trilateral consultations among China, India and Russia were recently held in Moscow and, in order to maintain regional balance, were followed by China-Russia-Pakistan discussions in Beijing.

Though it is indeed encouraging that Beijing is finally recognizing the need to work with India on Afghanistan, given regional geopolitics, New Delhi will be treading cautiously as it moves forward with its dialogue with Beijing.

Since 2001, China has adopted a hands-off policy toward Afghanistan, preferring the U.S. to do most of the heavy lifting. It did not want a serious involvement in Afghanistan, but it also did not want a victory for the extremists, given its negative impact on China's problems with Uighur separatists in Xinjiang. Apart from the U.S. \$3 billion Aynak copper-mine project, China also did not make a significant attempt to project its economic power in Afghanistan. But as the departure of Western combat forces from Afghanistan approaches, China has upped its game in Afghanistan. In 2007, the state-owned China Metallurgical Group Corp. secured a 30-year lease on the Mes Aynak site in Afghanistan's Logar province.

Though progress has been slow and Afghan insurgents have targeted the mine, Beijing expects to extract U.S. \$100 billion worth of copper from the site. China National Petroleum Corp. (CNPC) has also helped Afghanistan in

setting up the country's first commercial oil production site, which is likely to extract 1.5 million barrels of oil annually from 2013. China's humongous appetite for resources will ensure that Afghanistan, with more than U.S. \$1 trillion in potential mineral wealth, gets adequate attention from Beijing. With China's backing, Afghanistan became an observer in the SCO. China has also signed a strategic partnership agreement with Kabul. More significantly, Beijing has access to the Taliban through Pakistan and was the only non-Islamic nation in touch with Mullah Omar in the late 1990s.

It is true that the deteriorating internal security situation in Pakistan has strained Sino-Pakistan ties in recent years, to some degree. China Kingho Group, one of China's largest private coal mining companies, pulled out of what was to be Pakistan's largest foreigninvestment pact, citing concerns for the security of its personnel. Amid worries about the potential destabilizing influence of Pakistani militants on China's Muslim minority in Xinjiang, Beijing has also taken a harder line against Pakistan. The flow of arms and terrorists from across the border in Pakistan remains a major headache for Chinese authorities, and Islamabad's inability and/or failure to curb extremism makes it difficult for the Chinese to trust Pakistan completely. But it is equally the case that China, at least publicly, has continued to emphasize that its relationship with Pakistan is far more important than isolated incidents of violence.

In this context, few in New Delhi expect Beijing to change its Afghanistan policy significantly to suit Indian interests. The road to stability in Kabul lies through Rawalpindi, and China has few incentives to challenge the Pakistani security establishment's traditional adversarial mindset vis-à-vis India that continues to look at Afghanistan for some chimerical "strategic depth." Notwithstanding recent positive signals emanating from China, New Delhi is unlikely to find a fully cooperating partner in Beijing in the management of post-2014 turmoil in Afghanistan. But a dialogue between Asia's two mainland powers on Afghanistan is certainly worth pursuing. As the expression goes, they both have "skin" in this game.

The Center for Strategic and International Studies (CSIS) originally published this article in its May 2013 *Issue Perspective*.

WEEKENDS START A DAY LATER

Weekends in Saudi Arabia now begin on Friday to align banking and business days with most other nations in the region. The official Saudi Press Agency said in June 2013 that the move was enacted by royal decree after an advisory body recommended abandoning the longstanding Thursday-Friday weekend.

A similar proposal in 2007 failed, but the Saudi business community has been lobbying for the switch for years to match the schedule in key regional commercial hubs such as Dubai. Oman switched to Friday-Saturday weekends in May 2013. Most Gulf countries start their weekends on Friday, the Muslim day of communal prayer.

The Associated Press



UNITED NATIONS

Earth's population to swell and shift

he United Nations forecast in June 2013 that the world's population will increase from 7.2 billion today to 8.1 billion in 2025, with most growth occurring in developing countries and more than half in Africa. By 2050, the head count will reach 9.6 billion.

India's population is expected to surpass China's around 2028 when both countries will have populations of about 1.45 billion, according to the report "World Population Prospects." While India's population is forecast to grow to about 1.6 billion and then slowly decline to 1.5 billion in 2100, China's is expected to start decreasing after 2030, possibly falling to 1.1 billion in 2100, the report said.

It found global fertility rates are falling rapidly, though not nearly fast enough to avoid a significant population jump during the next decades. The Associated Press





SKILLED EUROPEAN WORKERS WELCOME

The head of Germany's employment agency has offered a blanket invitation to doctors and engineers in southern Europe to look for work in the continent's largest economy.

"The German labor market will eventually require the arrival of 200,000 new foreign workers every year to meet the demand for workforce," Frank-Juergen Weise, chief executive officer of the federal employment agency, told the *Rheinische Post* newspaper in March 2013.

During a visit in 2012 to Spain, where youth unemployment has soared to unprecedented rates well above 50 percent, Chancellor Angela Merkel explicitly urged young professionals to seek work in Germany.

The labor shortage is a major challenge facing Germany, which has one of the lowest birth rates in Europe. Agence France-Presse



ANCIENT WRITINGS

collide with digital age



STORY AND PHOTOS BY AGENCE FRANCE-PRESSE

As a schoolboy, Akihiro Matsumura spent hundreds of hours learning the intricate Chinese characters that make up a part of written Japanese. Now, the graduate student can rely on his smartphone, tablet and laptop to remember them for him. "Sometimes I don't even bother to take notes in seminars. I just take out my tablet to shoot pictures of what instructors write on blackboards," he said.

Like millions of people across East Asia, 23-year-old Matsumura is forgetting the pictographs and ideographs that have been used in Japan and China for centuries. Although some bemoan what they see as the loss of history and culture, others say the shift frees up brainpower for more useful things, such as foreign languages, and even improves writing in general.

Naoko Matsumoto, a law professor who heads international legal studies at Sophia University near Tokyo, said students in her classes now write more fluently than their predecessors. "I'm in my 40s, and compared with my generation, they have more and more opportunities to write using Twitter" and other social networking services, she said. "I think they are actually better at writing" because they write in a simple and easy-to-understand way.

Priorities are changing, with more emphasis placed on building logical thinking strategies — a case of content becoming more important than form. "The skill of handwriting kanji [Chinese characters] perfectly is becoming less necessary compared with earlier times," Matsumoto said.

Kanji developed in China as a mixture of pictographs, characters that represent a thing, such as "mountain," and ideographs, those that depict an abstract concept, such as "think." China uses only these characters, a simplified version on the mainland and the traditional form in Taiwan and Hong Kong. Japan imported kanji during the first millennium to use as a writing system, even though no linguistic link existed between Japanese and Chinese.

Around the eighth or ninth century, it developed a syllabary, a system of consonant/vowel blends called "hiragana." Whereas kanji contain a meaning but no inherent sound, each hiragana character represents a sound but has no inherent meaning — like a letter in the Latin alphabet. Unlike the alphabet, however, each syllable only ever has one sound.

A second syllabary, called "katakana," also developed. Modern-day written

Japanese is a mixture of kanji, hiragana and katakana, with an increasing amount of Western script also thrown in (known as "romaji," or Roman letters).

In both Chinese and Japanese, computer and smartphone users need only to type the pronunciation of the kanji from the constituent sounds with either the syllabary or the alphabet. They then choose one of several options offered by the device.

Very different meanings can come from the same sounds. For example, in Japanese, "shigaisen" produces "street fighting" and "ultraviolet rays."

"It's easy to forget even the easiest of characters," said Zhang Wentong, an assistant at a calligraphy center in Beijing. "Sometimes you've got to think for ages. Occasionally, I'll repeatedly type the character out phonetically in my phone" until the right one pops up.

Graduate student Matsumura said his reliance on devices leaves him adrift when faced with filling out repair forms at the electronics shop where he works part time. "I sometimes can't recall kanji on the spot while a customer is watching me," he said. "I remember their rough shapes but can't remember exact strokes. … It's foggy."

Traditionalists fear that forgetting kanji means the irrevocable loss of a fundamental part of culture.

In Hong Kong, Rebecca Ko said her 11-year-old daughter uses the computer more and more, but she insists the child learn traditional characters and sends

her to a Chinese calligraphy class. "We cannot rely too much on computers. We should be able to write ... [and] we should be able to write neatly. It's a basic thing about being Chinese," she said.

However, times change, Matsumura said, and the spread of technology gives people opportunities Akihiro Matsumura, left, a university student, uses his tablet computer while his friend practices handwriting Chinese in Tokyo in June 2013. Matsumura spent hundreds of hours learning the intricate **Chinese characters** that make up a part of written Japanese. He can rely on his smartphone, tablet and laptop to remember them for him.

to develop their language capability in other ways, for example, allowing some to read more. "I'm one of them. I used to listen to music blankly on trains, but I now read news and other things," he said.





Tablets Thrust Thai Classrooms into **Digital Age**

In a rural classroom in the Thai highlands, hill tribe children energetically slide their fingertips over tablet computer screens, practicing everything from English to mathematics and music. The students are part of an ambitious scheme by the kingdom to distribute millions of the hand-held devices in its schools in a move supporters hope will boost national education standards.

At Ban San Kong school in Mae Chan in the northern province of Chiang Rai, 90 children received a tablet computer in 2012 because of the "One Tablet Per Child" policy that was part of the government's election campaign in 2011. Previously the school had only a few desktop computers with limited Internet access.

Now, with headphones over their ears for one hour a day during class, the students use the devices for activities that include singing English songs, watching cartoons about the life of Thailand's revered King Bhumibol and playing math games.

Agence France-Presse

TALK ABOUT A GIANT LEAP

A talking robot that accompanied a Japanese astronaut into space in 2013 hailed the cosmic tour as one giant leap for androids everywhere.

In a scene straight out of *Star Wars*, the pint-size Kirobo fielded questions in June 2013 from curious journalists who asked what it was going to do in space.

"This may look a small step, but it will be a big stride as a robot," the black-and-white humanoid robot outfitted with bright red boots said at a news briefing in Tokyo.

Its creators said they were sending the robot into space to act as a chatting partner for astronaut Koichi Wakata on his journey to the International Space Station.

Standing at 34 centimeters tall and weighing about 1 kilogram, the little android is programmed to communicate in Japanese and record its conversations with Wakata.

Agence France-Presse



REUTERS

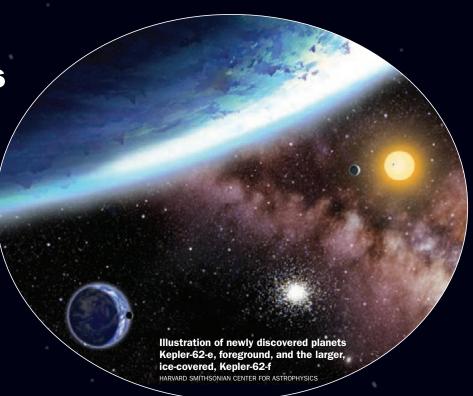
ASIA TOPS RANKS IN DAILY ONLINE

GAMERS

Worldwide, nearly 671 million people played an online game using a desktop computer or **laptop** in April 2013, with **145** million gamers playing on a daily basis. The number of daily gamers differs regionally: An average of 47.9 million Internet users in the Asia Pacific access an online gaming site daily, followed by **Europe with** 45.6 million daily players. **North** America ranked third with 30.3 million Internet users playing games daily. Latin America and the Middle East-Africa had 14.9 million and 6.2 million, respectively.

comScore.com

Astronomers
Find Distant
Planets
That Seem
IDEAL
FOR LIFE



THE ASSOCIATED PRESS

NASA's planet-hunting telescope has discovered two planets that seem like ideal places for some sort of life to flourish. They are just the right size and in just the right place.

The distant duo are the best candidates for habitable planets that astronomers have found so far, said William Borucki, the chief scientist for NASA's Kepler telescope. It has astronomers thinking that similar planets that are just about right for life might be common in the universe.

The discoveries, published in April 2013 in the journal *Science*, mark a milestone in the search for planets where life could exist. In the four years that Kepler has been trailing Earth's orbit, the telescope has found 122 exoplanets — planets outside this solar system.

In the past, those planets haven't fit all of the criteria that would make them right for life of any kind, from microbes to man. Many planets aren't in the habitable zone — where it's not too hot and not too cold for liquid water. Until now, the few found in that ideal zone were too big. Those are likely to be gas balls like Neptune

and unsuitable for life.

Similarly, any Earth-size planets weren't in the right place near their stars, Borucki said.

In the search for other planets like Earth, the discoveries, called Kepler-62-e and Kepler-62-f, are just right. They are fraternal twins of sorts. They circle the same star, an orange dwarf, and are next to each other, closer together than Earth and its neighbor Mars.

Kepler-62-e is a bit balmy, like an Indonesian world, and Kepler-62-f is a bit frosty, more like Iceland, Borucki explained. The pair is 1,200 light-years away; a light-year is almost 10 trillion kilometers.

Both planets are tantalizing. The dozens of researchers who co-authored the study disagree on which one is better suited to life. Lisa Kaltenegger of the Max Planck Institute of Astronomy in Germany likes Kepler-62-e more because it's closer to the star and is warmer. That planet is so close it may need clouds to cool off, and it's more likely to be an all-water world, unlike any other in Earth's solar system, she said. Astronomers cannot confirm

that either planet has water, but based on other research, it's a good assumption, she said.

The planets circle a star that is 7 billion years old — about 2.5 billion years older than Earth's sun. Kepler spots the planets as they go between Earth and their star.

"If there's life at all on those planets, it must be very advanced" evolutionarily because the planets are so old, Borucki said.

In another study published by some of the same authors in *Astrophysical Journal*, the astronomers found a different set of planets that are slightly bigger, but probably not gas giants, and circle a star that more resembles Earth's sun. One of those planets is on the edge of the habitable zone and could be considered a potential third good place for habitation, said Thomas Barclay of NASA's Ames Research Center, which runs the Kepler telescope.

All told, researchers announced seven new exoplanets in April 2013, upping the grand total found so far by Kepler and earthbound telescopes to about 850, NASA reported.

Dumb Moves, Smart Ad

An Australian public service ad campaign that became an Internet hit added to its luster in June 2013 by scooping up a record number of international advertising prizes.

It was known for its black-humored list of reckless ways to die such as "poke a stick at a grizzly bear." The three-minute short was co-produced by Melbourne private rail service Metro Trains to teach people to be careful around trains. Titled "Dumb Ways to Die," it has had more than 50 million views on YouTube since its release in November 2012, sparked hundreds of parodies and even become a smartphone game.

The clip employs a catchy tune and colorful blobs that die in a variety of ways, including "keeping a rattlesnake as a pet" and "selling both kidneys on the Internet," before culminating in trainrelated deaths that are described as "the dumbest way to die."

It swept the awards at the Cannes Lions International Festival of Creativity in June 2013, winning the most ever awarded to one campaign in the festival's 59-year history.

Best of all, Metro Trains reports a 21 percent reduction in accidents and deaths since the campaign began. Reuters



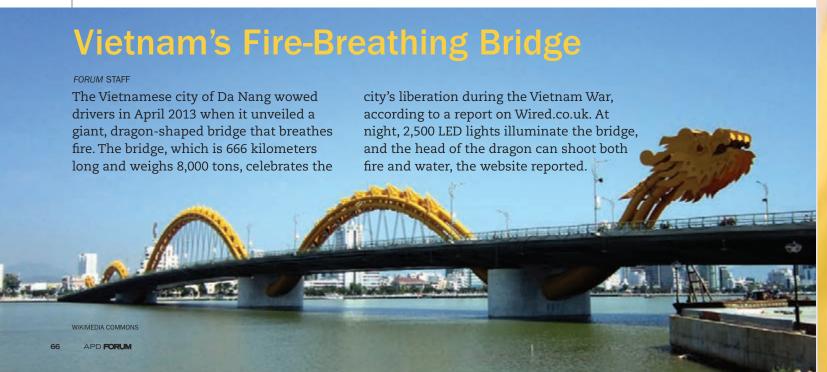


previously unknown bird species has been discovered in Cambodia - and not in some remote jungle but in the country's capital. Scientists from the Wildlife Conservation Society and other groups found the wren-size Cambodian tailorbird living in dense, humid lowland scrub in Phnom Penh and other locations just outside the city, the society announced in June 2013.

Only one other bird species is unique to Cambodia — the Cambodian laughing thrush, found only in the remote Cardamom mountain range.

"Finding any new bird species is special, but to find one so close to my home and the homes of millions of people is particularly special," said Simon Mahood of the Wildlife Conservation Society. "The bird is probably not rare, although its habitat is threatened. In the places where it can be found, it is abundant."

The Associated Press







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Financial assistance to attend is available for qualifying countries. Register soon; space is limited.

To register or for more information, contact U.S. Army Lt. Col. Walter Richter at WALTER.RICHTER@SOCOM.MIL

