

Dutch peacekeepers in Eritrea.



AP/World Wide Photos (Seyyid Azim)

New Instruments for War and Peace

By JOSEPH J. EASH III

The regional commands devote considerable effort to shaping their security environments. U.S. Pacific Command reports that its most likely and time-consuming missions fall short of war: civic action, disaster relief, humanitarian, and peace operations. Such noncombat efforts, though challenging, pay off in many ways. A report by the Center for International Development and Conflict Management at the University of Maryland showed that armed conflicts within and among states fell by nearly half since the early

1990s. This decline is attributed to conflict management practices and international support for peace building.

Clearly, conflict prevention is a safer and cheaper approach than setting up refugee camps and rebuilding infrastructures. Eliminating the causes of hostility is even more desirable in light of asymmetrical threats and the consequences of attacks on U.S. citizens and allies. As Deputy Secretary of Defense Paul Wolfowitz has said, "it is very important to have an active strategy . . . the goal is to keep wars as small and as far away as possible."

Prediction and Prevention

Combatant commands seek a more effective and efficient way of shaping. Increasingly they face complicated geopolitical situations with fewer

Joseph J. Eash III is Deputy Under Secretary of Defense for Advanced Technology and previously worked as principal research engineer at Georgia Tech Research Institute.

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE 2001		2. REPORT TYPE		3. DATES COVERED 00-00-2000 to 00-00-2001	
4. TITLE AND SUBTITLE New Instruments for War and Peace				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) National Defense University, Institute for National Strategic Studies, 260 5th Avenue SW Fort Lesley J. McNair, Washington, DC, 20319				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 5	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

assets than during the Cold War. There is no actionable framework to assess potential for crises or identify means of preventing them. There may be help on the way. A recent study by the Presidential Committee of Advisors on Science and Technology concluded that "scientific research can clarify causes of deadly conflict." This research stems from the new social sciences, where tools like agent-based programs can simulate nonlinear societal activities beyond merely economic considerations. Moreover, information technologies are offering new life to forecasting instability. The Defense Advanced Research Projects Agency attempted to develop a model-based forecasting system during the early 1970s. It failed because of a primitive information and computer system. The technologies of today may succeed.

There is growing interest in forecasting. A workshop organized by U.S. Pacific Command studied methodologies developed by the Center for Army Analysis, Joint Warfighting and Analysis Center, and National Ground Intelligence Center—each showing promise for predicting instability.

business regards conflict prevention as a high priority for long-term development and profitability

Another enabler of instability forecasting is the availability of data. More than ever before, national and international organizations have collected data on the causes of instability, particularly intrastate conflict.

This and other data that may be collected will facilitate detailed empirical examinations. These could verify conflict theories and enable the design and testing of preventive strategies.

International attention to conflict prevention is considerable and growing. To a large extent it is motivated by humanitarian concerns. Most casualties in conflicts are not military but

civilian. At the start of the 20th century nonmilitary casualties accounted for some 50 percent of war-related deaths but by the end of the century had increased to 75 percent. Another motivation is the desire for a stable international order. Intrastate conflicts have interstate consequences, as seen by the exodus of refugees from Somalia, Haiti, Rwanda, and the former Yugoslavia. Even local politics are affected by transnational issues that swamp traditional governmental structures. In addition, the international business community, which once had little involvement in conflicts other than providing aid, today regards conflict prevention as a high priority for long-term development and profitability.

Illuminating the Shadow of War

International organizations are not only collecting data on the causes of instability but are demonstrating the possibility of forecasting the causes themselves. Two efforts are noteworthy. *Social and Economic Policies to Prevent Complex Humanitarian Emergencies*, cosponsored by the U.N. World Institute for Development Economics Research and Queen Elizabeth House at Oxford University, captured data on complex humanitarian emergencies from 1980 to 1995. The second, *Economic Causes of Civil Conflict and Their Implications for Policy*, was compiled by researchers at the World Bank and examined 73 civil wars between 1965 and 1999 and collected details on 47. The studies provide insights into the causes of instability and have reached either similar or complementary conclusions. The U.N. report "debunks . . . common beliefs in the recurrent literature in this area," while Paul Collier has observed that the results of the World Bank research "are so counterintuitive . . . social scientists should be distrustful of the loud public discourse on conflict." Together, they question the inevitability of conflict.

"A key theme of the research is that conflict in the late 20th century cannot be explained as an inevitable resurgence of tribal tensions," reports the United Nations. Rather, the likely causes are multiple, with political and economic factors playing the largest roles. In each case, the factors interact in varying ways. Events can trigger underlying tensions by exposing the inability of the government to maintain order or by creating a focal point for the mobilization of rebellious forces. These studies demonstrate that much more is known about the conditions that inspire conflict than those that make it actionable.



Training Nigerians for peace operations.

U.S. Navy (Jim Hampshire)

U.N. relief arriving in East Timor.



commentary

U.S. Marine Corps (Bryce Piper)



AP/World Wide Photos (Visar Kreyzliu)

Albanian rebels southeast of Pristina.

Both reports indicate that even though declining economic conditions such as slow growth and low income contribute to the likelihood of conflict, they may not be the cause of it themselves. It may be precipitated by natural disasters as well as government practices. In the 1980s, droughts in Zimbabwe, followed by state closure of shops and suspension of services, created conditions for violence. External factors may contribute to instability. Expatriates often fund conflicts in their native countries. External debt combined with falling living standards during the 1980s increased potential for conflict in Yugoslavia. Collier also states that "Countries with a

substantial share of their [gross domestic product (GDP)] coming from the export of primary commodities are radically more at risk." He calculates that a nation with a commodity export comprising 26 percent of GDP has a 23 percent greater risk of conflict than those with no commodity exports. Worsening trade terms can hurt a nation with such dependency, as seen in oil-reliant Nigeria. Also, a commodity may be the primary goal of corrupt officials and rebels, as were diamond areas in Sierra Leone.

Economic stagnation is not always a sufficient cause for internal conflict, however, as seen in the lack of violence in Tanzania in the 1980s and Cuba in the early 1990s. Social composition may also contribute. According to Collier, risk doubles for states with a dominant cultural group that can gain control and cause discrimination against minorities. Ethnically diverse states are safer largely because of the difficulty for rebel groups to recruit a viable force in factional societies.

Inequities between groups can also be a contributing factor, according to the U.N. report. The problem stems from uneven access to economic opportunities: land, education, or government services. The greatest grievance is an unequal access to political power. In Haiti, the Congo, and



56th Signal Company (William Montoya)

Soldiers controlling Serb crowd in Kosovo.

no model completely explains the cause of conflict or provides a solution for all eventualities

elsewhere political power has enabled economic power. Such inequities, particularly in a declining economy, sharpen group identities and create a factionalism that can be exploited.

History also matters. Some societies in which groups have complaints lack the tradition of settling political differences through violence. However, the U.N. report states that the history of violence greatly "heightens the likelihood of a

complex humanitarian emergency." One such case is Haiti, which has experienced 12 successful coups since 1956.

But immediately after hostilities, there is a 40 percent chance of another conflict, Collier reports, which falls only 1 percent with each year of peace, a significant factor if the mission is peacekeeping.

"Conflicts are more likely to be generated by resource wealth than resource poverty," adds the U.N. report. It is the "very wealth that the environment offers and the potential for private and group accumulation that drives conflict." Thus unrest does not seem to involve the "rage of the poor," as Collier puts it, but more often the "rage of the rich."

In a worsening economy, ruling elites may make a greater effort to maintain their position, as described in the report: "In order to maintain incomes of the ruling elite as the economy declines, corruption has to become more gross."

Moreover, elites may take desperate actions against threats to their political and economic power. A study of 17 complex humanitarian emergencies showed that governments usually initiated violence, as occurred in Rwanda, Burundi, Uganda, and Haiti.

Leaders on all sides may seek to build support within the population—and herein often lies a major misperception. "Historic animosities have been exploited to enhance mobilization," notes the report by the United Nations. "A sense of grievance is deliberately generated," writes Collier. Depending on the nation in question, leaders may capitalize on grievances among ethnic, religious, or clan groups. Grievance is how many understand the cause of conflict. A downward spiral will likely ensue. Internal conflict usually leads to a crisis of state legitimacy. The U.N. report points out, "There is also a key interaction between state legitimacy and economic performance." As the economy declines, so do public revenues. This reduces the capacity to fund defense and makes rebel predation easier. A bad economy also boosts recruitment from the unemployed.

New Research Agenda

Although by no means complete, research carried out to date accomplishes several things. It goes a long way towards clarifying the causes of conflict and countering popular misperceptions. Moreover, it reveals the possibility of collaboration across the international scientific community, the closest thing to a global endeavor. This could yield data on aggressive behavior, inter-group relations, ethnocentrism, mutual accommodation, and conflict resolution. This research might also indicate that improvements in theory, identifying as well as relating the cause of conflict, may make it possible to develop a predictive model to enable a more reliable assessment of conflict.

No model completely explains the cause of conflict or offers a solution for all eventualities. However, any viable model would have significance for the Armed Forces. As analysts from U.S. Pacific Command indicate, "Finding an appropriate yardstick to measure instability . . . could greatly assist military planners and operators in their work to prevent future conflict."

Also, a predictive model could help combatant commands working with the Department of State and other agencies prepare for prevention. Analytical modeling could enable them to decide when forces are most needed, so assets could be more effectively employed. It would also aid in tailoring forces to the situation. If causes of conflict became known, forces could then train for the necessary functions to prevent it. This model could provide a venue for decisionmakers to work

Planting maize in
North Korea.



AP/World Wide Photos (Peter Smerdon)

commentary

together and assist them in understanding the impact of their actions on conflict prevention.

Moreover, a predictive model might provide a more comprehensive approach to prevention that takes advantage of national strengths other than military force. The lessons from Afghanistan to Rwanda are that piecemeal assistance does not work. This model might help define the role of forces and guide performance relative to other nations and nongovernmental organizations.

If science can help, so can technology. It might provide new shaping tools for prevention. Once causes are better understood, information technologies can find data to help detect changes in a nation and provide early warning of impending threats. Modeling and simulation based on sound research can explore ways of changing conditions in countries susceptible to internal conflict.

The potential inherent in this approach can be found in interactive and distributed learning simulations such as synthetic environments for national security estimates and crisis management workshops developed by the Institute for Defense Analyses. Participants must make decisions on almost every aspect of national development or reconstruction, including health, education, investments, and budget. Simulation can teach economics without lectures and also illustrate the effects of short-term opportunistic decisions and

the benefits of sustained development. Representatives of Georgia, Bosnia-Herzegovina, and Montenegro have used this method.

One way of contemplating the future is discerning the fundamental causes of current trends to anticipate their impact. It is also the best way to prevent conflict in an increasingly shrinking and interconnected world. How that is done greatly depends on scientific research. The causes of war must be disclosed by hard data that only a scientific inquiry can produce, not on mere perceptions. That data has been collected and may serve as the basis for a future international cooperative effort. Research can ensure a more efficient use of shaping tools in conflict prevention. It may also provide the Armed Forces with more effective tools to shape the security environment, contributing to a more focused and advanced warning of instability. This would give combatant commanders time as well as insights on where and how to use forces. Such instruments could lead to a more active approach to national security and a more peaceful environment. **JFQ**