

by all the members of NATO, all former non-Soviet members of the Warsaw Pact, and the eight states of the former USSR occupying territory already covered in CFE 1.

Difficulty was encountered over the definition of "military personnel", with the ultimate agreement being to include full-time personnel serving with land and air forces, but to exclude most personnel in naval formations and all in organizations employed for internal security. Numerical ceilings were established for each participating state, and it was agreed that information would be exchanged regarding authorized peacetime personnel strengths, command organization, and peacetime locations of formations down to the level of brigades, regiments, and wings, and also to include central headquarters, independent units, and rear services. Prior to an on-site inspection (as agreed in CFE 1), information on personnel will be added to that on TLE (the latter already specified in considerable detail in CFE 1), and the inspectors will have access to facilities such as barracks and messing facilities.

Doubts have been expressed regarding the practical feasibility of verifying troop limitations. Individual soldiers will not be recognizable in overhead imagery. While it would be possible to issue all military personnel with magnetically imprinted and electronically readable identity cards, carrying thumb prints, and to maintain a register listing each person's identifying features, military unit and location, there would be associated administrative costs and a requirement for continual updating. It would also be possible to have a permanently manned inspection post at the entrances to military bases, similar to the "perimeter portal monitoring" for missile production factories in the INF Treaty, and equipped with apparatus able to transmit thumb prints to a central registry, but considerable expense and intrusion would be involved, and deception would always be possible.

While the difficulties posed for direct counting of military personnel may seem formidable, and the provisions less than adequate, it may be that an acceptable level of verification can be attained by the application of synergy. The combined effects of the information exchanges agreed in CFE 1, CFE 1A, and the 1992 Vienna Document give the numbers of soldiers (or airmen) associated with the number of TLE for the units at the inspected site, and the verification provisions should allow a fairly accurate count of the TLE. Rough "orders of battle" and "tables of establishment" can be constructed in the basis of this information, and refined using data from NIM. Other information acquired during a CFE on-site inspection, such as the size of training, barrack, and messing facilities, and numbers of vehicles, would all add clues as to the number of personnel attached to the inspected site. As inspectors gain experience they should become better able to sense differences between the units of a particular army or air force, and to notice deviations from standard practices. It then becomes a judgement by the inspectors as to whether the evidence regarding the numbers of personnel associated with the units appears generally consistent with the stated numbers and the associated equipment.

Methods such as these would be applicable to large well-organized forces composed of standard units armed with standard equipment. They would be less effective for irregular forces armed with a wide variety of non-standard weapons.

The relationship of combat power to personnel strength depends on the type of formation. For naval and air forces, combat power depends primarily on the number and type of ships and aircraft. For an armoured or artillery regiment, it depends mainly on the number of tanks or guns. But for an infantry regiment the personnel becomes relatively more important. And for a force equipped with light, portable easily concealed weapons, but few or no large and more easily countable combat vehicles, aircraft or

