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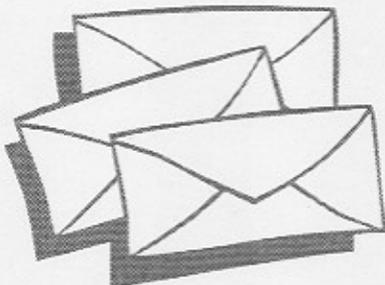
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INDEX

PG

Doctrine
Update.....3

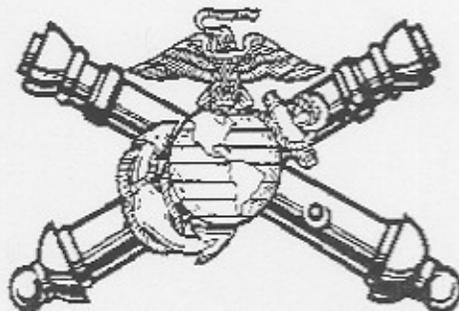
School
Update.....7

NSFS Requirement
Letter.....9

Target Acquisition update.....10

Marine Corps Artillery Detachment
Phone Roster.....11

Hail and
Farewell.....13



DOCTRINE UPDATE

By Captain Chad Chorzelewski

In recent years the Marine Corps has worked aggressively to revise and update its doctrinal publication. The Marine Corps Combat Development Center (MCCDC) is responsible for maintaining doctrine and tactics, techniques, and procedures (TTPs) that are timely, relevant, and compelling. In order to achieve this mission, MCCDC instituted a program in which schools and commands were tasked as proponents for various manuals. However, the process of rewriting a Warfighting (MCWP) or Reference (MCRP) publication is very time consuming.

Traditionally, MCCDC views proponency as a team effort. The first and most important consideration in the execution of this concept will be mutual cooperation and regular communication between Marine organizations. Our doctrine provides the common framework and cultural perspectives for Marines and Sailors to think about and debate the issues of our profession. The proponency system of doctrine development offers us monumental opportunity to collect and distill our warfighting experience into an authoritative body of thought. This body of thought should be used to enrich, educate, and guide current and future generations of Marines. The only way that the proponency system, and doctrine as a whole, can be effective is with the direct participation of the Fleet Marine Forces along with the Doctrine Division.¹

Additionally, there seems to be a misunderstanding of what doctrine and TTPs are exactly. Generally, doctrine, which consists of principles and TTP, defines, in terms of general capabilities how the military intends to conduct operations across the range of military operations.

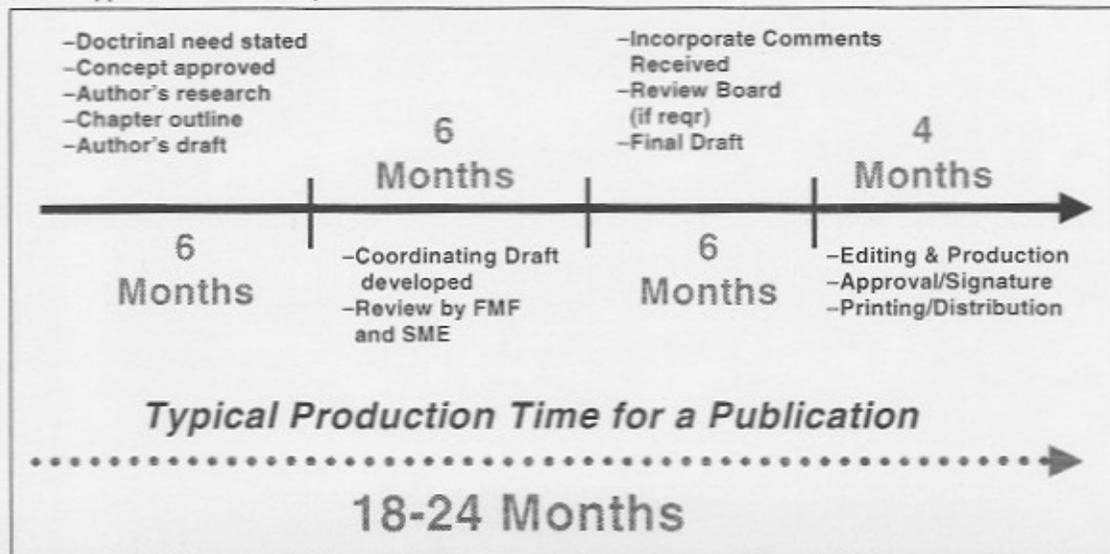
Doctrine: Fundamental principles by which the military forces or elements thereof guide their actions in support of national objectives. It is authoritative but requires judgment in application.²

Tactics: 1. The employment of units in combat. 2. The ordered arrangement and maneuver of units in relation to each other and/or the enemy in order to use their full potential.³

Techniques: Techniques are the methods used by troops and/or commanders to perform assigned missions and functions, specifically, the method of employing equipment and personnel.⁴

Procedures: Procedures are the standard and detailed courses of action that describe how to perform a task- specifically, how individuals perform their tasks.⁵

Historically, the time between stated doctrinal need and distribution can last as long as two years. Once an author's draft has been reviewed internally, the Doctrine Division, MCCDC will normally designate a 90 day period for the Fleet Marine Forces to review the coordinating draft of a new revision. If the changes require significant corrections, a second coordinating draft maybe sent out. Once the final coordination draft comments are accepted and incorporated the draft is sent to civilian editors in the Doctrine Division. This process usually adds an additional 90 days to create the final editor's draft. This draft is then sent to the Commanding General, MCCDC, for signature. Once signed its receives a publication control number (PCN) and is placed on the Doctrine Division's website as a signed manual.⁶ The following table gives the typical timeline for a publication revision:



The Marine Corps Artillery Detachment, Fort Sill is responsible for the preponderance of the ground fire support warfighting and reference publications.

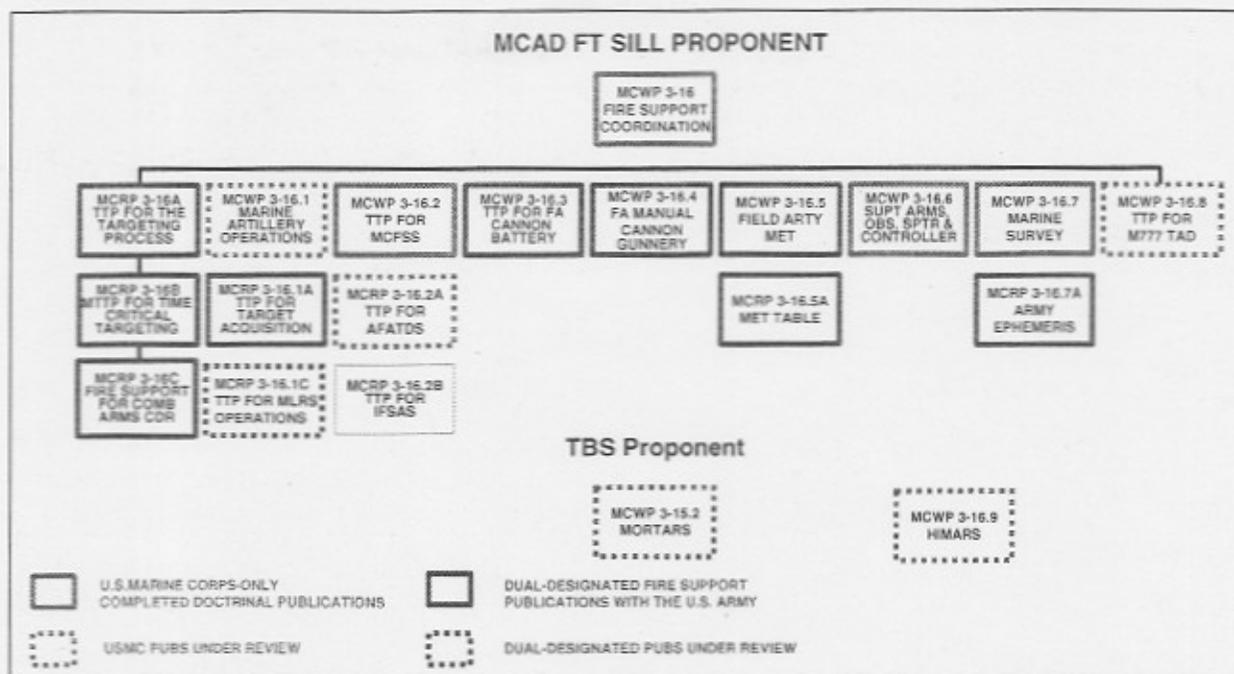


Figure 2 Fire Support Publications from Doctrinal Hierarchy

MCWP 3-16 TTP for Fire Support Coordination in the GCE. (Ft. Sill)

- Re-write of FM 6-18
- Contains up-dated TTP, incorporation of fire support planning into MCPP, revised target numbering scheme, and an example Appendix 19.
- Signed in November 2001.

MCRP 3-16A TTP for Targeting Process (Ft. Sill)

- Dual designated FM 6-20-10
- To be revised as FM 3-60
- Contains detailed discussion of targeting process (decide –detect-deliver-assess).

MCRP 3-16B MTTP for Time Critical Targeting (Joint Branch, Doctrine Division)

- ALSA publication.
- Focused on process of adapting to time critical targets.

MCRP 3-16C Fire Support for the Combined Arms Commander (Ft. Sill)

- Dual Designated as FM 6-71.
- Revised as FM 3-09.31, awaiting signature.
- Discusses the capabilities and limitations of supporting arms, fire support planning process (using MDMP instead of MCPP), and how to create commander's guidance for fire support.

MCWP 3-16.1 Marine Artillery Operations (Ft. Sill)

- Re-write of FM 6-9 Marine Artillery Support.
- Currently in editing for Final draft.
- Updated TTPs, incorporates artillery regiment, battalion, and battery operations. Includes MCPP and creating the Artillery Fire Plan.

MCRP 3-16.1A Target Acquisition (Ft. Sill)

- Dual designated FM 6-121
- Revised as FM 3-09.12, awaiting signature
- Focuses on the use weapons locating radar and sensor zones

MCRP 3-16.1C TTP for MLRS (Ft. Sill)

- Dual Designated FM 6-60
- Will be revised as FM 3-09.60
- Contains TTP for MLRS Operations

MCRP 3-16.2 MCFSS (Ft. Sill)

- Currently 6-18.1 MCFSS
- Discusses IFSAS Operations.(will be rewritten to incorporate AFATDS and new digital fire support equipment)
- Will be rewritten to include how commanders/supervisors create guidelines and the use of all digital fire support equipment from company level higher.

MCRP 3-16.2A AFATDS Handbook (Ft. Sill)

- Operator's handbook for AFATDS Operations
- Currently an ST written by NETT, revised with software updates.

MCWP 3-16.3 TTP for Cannon Battery (Ft. Sill)

- Dual designated FM 6-50.
- Contains duties and responsibilities of the battery staff, movement techniques, and other TTP for Battery Operations.

MCWP 3-16.4 Cannon Gunnery (Ft. Sill)

- Dual designated FM 6-40.
- Contains TTP for manual cannon gunnery.
- Change 1 has been signed the US Army. Incorporates changes to safety calculations and the addition of information on SADARM calculations.

MCWP 3-16.5 Field Artillery Meteorology (Ft. Sill)

- Dual Designated FM 6-16
- TTP for executing meteorological operations.

MCWP 3-16.6 Observer, Spotter, and Controller Handbook (Ft. Sill)

- Rewrite of FMFM 6-8.
- Describes duties of FOs, NGF spotter, and FACs.
- Major focus on how to call for fire, laser operations, and special munitions.

MCRP 3-16.6A J-Fire (Joint Branch, Doctrine Division)

- ALSA publication
- Quick reference guide on weapons systems.

MCWP 3-16.7 Marine Survey (Ft. Sill)

- Signed 28 Jan 2002
- Provides TTP for artillery survey. This includes use of manual methods, PADs, GPSS, and hasty survey techniques (astro).
- Discusses requirements for common survey, creation of survey control points, and control of survey parties.

MCWP 3-16.8 TTP for Lightweight Automated Howitzer (Ft. Sill)

- Place holder for future publication that covers XM-777 (with towed artillery digitization).
- May eventually be incorporated into MCWP 3-16.3

These doctrinal publications and other publications can be accessed via the Internet at the following sites:

Requirements Development
Determination and Integration,
Ft Sill, USAFAS, Ft. Sill

<http://155.219.39.98/doctrine/wddfrm.htm>

Doctrine Division, WDID, MCCDC

<http://www.doctrine.quantico.usmc.mil>

Captain Chorzelewski is the Marine Corps Artillery Detachment Doctrine Officer. He can be contacted at DSN 639-5644 or chorzelewskic@sill.army.mil.

¹ Letter, Commanding General, MCCDC, 5600, C42, 29 July 1996, subject: Doctrinal Proponency

¹ Department of Defense, Dictionary of Military and Associated Terms, JP 1-02, 12 April 2001 p.132

¹ Department of Defense, Dictionary of Military and Associated Terms, JP 1-02, 12 April 2001 p.421

¹ Department of the Army, Index of TRADOC Administrative Publications, "The Doctrinal Literature Program" TRADOC Regulation 25-36, 19 September, 2000 p. 6

¹ Department of Defense, Dictionary of Military and Associated Terms, JP 1-02, 12 April 2001 p.340

¹ Zyla, Robert C. "Doctrine Update" Eagle Globe and Blockhouse Issue 1-00, March 2000 p. 18

SCHOOL UPDATE

By Major Alvin Peterson

Introduction: The US Army's much advertised "Transformation" is impacting throughout the operational force and the institutional base. Here at the US Army Field Artillery School (USAFAS), we are responding to the "Transformation" of the Officer Education System. For the purposes of this article, we will look specifically at the training of Lieutenants because the concept and planning behind the way the Army will train its Lieutenants is most mature. It has been the task of Marine Detachment, Ft Sill, to analyze those impending changes and to develop Marine specific training that will address those areas that we feel will not be adequately trained under the current plan. In this process, we have sought input from the fleet and incorporated that input into Marine only follow-on training.

The Concept: The Army conducted a survey of its officer corps soliciting input on the state of the officer corps. One of the themes to come out of that survey was the lack of an "Army Ethos" that transcended branch identification. Additional concerns were a lack of a "Warrior Ethos" across all branches and a lack "field craft in those branches". The CG TRADOC directed that a concept/plan be developed in which all Lieutenants irrespective of branch would prior to attending their Branch Schools go to centralized training that would focus on leadership, field craft and creating an "Army Ethos." The Basic Course (OBC) as we currently know it is to be replaced by the Basic Officer Leaders Course (BOLC). BOLC is to be a two phased training process in which all lieutenants will attend the same BOLC Phase I. BOLC Phase I will occur at two or three different sites, yet to be named. However, the Program of Instruction (POI) will be the same at each of those sites focusing on those things previously mentioned. BOLC Phase II will take place at the Branch Schools. It is during this phase that the Branch Schools will teach the technical and tactical skills needed for their lieutenants. After analysis and a couple of pilots the Army has determined that BOLC Phase I will be six weeks in length. Currently, it is projected that BOLC will be implement in 4th Quarter of FY 03.

The Challenge: The Army's concern about not increasing resource requirements and desire to ensure that each Lieutenant is in the operational force within nine months of commissioning has meant that the six weeks dedicated to BOLC Phase I will be taken out of time that is currently allotted to the Branch schools for their OBC POIs. For example, the Field Artillery Officer Basic Course (FAOBC) is currently a 19.4 week POI. The Field Artillery School will now only have 13.4 weeks to give Lieutenants the tactical and technical training needed. This is a difficult challenge at best. As the Army was formulating it's concept for BOLC, USAFAS stood up a working group consisting of subject matter experts both Marine and Army. The charter of this working group was to gain efficiencies in instruction and to identify those tasks that would be dropped from instruction or taught to a lower level of proficiency. At the same time, the working group received guidance to add more "field rigor." A 13.4 week POI was developed and a pilot with 20 US Army Lieutenants was conducted beginning January, 2002. The BOLC Phase II POI that was developed was based on the current Task List that is approved for the training of Lieutenants. With the exception of a few tasks, platoon leader type skills, the BOLC Phase II POI retained the majority of tasks currently trained but in order to get to a 13.4 week POI those tasks are being taught to a lesser level of proficiency.

The Marine Lieutenant: As the BOLC Phase II POI began to take shape the Marine Detachment stood up it's own working group to analyze the BOLC POI. The guidance given to that working group was to develop a Marine only follow-on course that would; add additional training to those critical tasks that needed a higher-level of proficiency then was being afforded in the BOLC POI, train tasks that we felt

were critical that had completely fallen out of the BOLC POI, and take advantage of an opportunity to train some tasks/skills that were not being trained in the current OBC. A draft follow-on template was sent to the Fleet for staffing. Recommendations from the Regiments have been incorporated into the current planned follow-on template. The highlights of the follow-on are: a robust supply and maintenance package, approximately 70 hours of Marine specific fire support training, sixteen hours of survey instruction, additional weapons specific time and additional safety training. Some of this instruction will take place during BOLC Phase II while the Army lieutenants are getting Army specific training. The majority will take place during the follow-on, which will be approximately 20 days in length.

The Way Ahead: As the BOLC working group was developing the BOLC Phase II POI it became apparent that a complete Task Analysis is in need to determine what the core competencies for a Field Artillery lieutenant are. It has been several years since such analysis has been done. During that time the field artillery has seen significant changes in technology and weapons systems. For example, a Task Analysis has not been done since the Army fielded the Multiple Launch Rocket System (MLRS). So, what exactly training does an Army lieutenant need when his first assignment will be a MLRS unit? Recognizing the need for a detailed Task Analysis USAFAS has contracted with Tech Masters Incorporated to conduct a detailed Task Analysis and produce a new improved BOLC Phase II POI that incorporates the results of the Task Analysis. Obviously, this POI will have to be developed with-in the current confines of resource limitations, specifically the constraint of 13.4 weeks. In addition to receiving less time to for branch specific instruction the Branch Schools were told to focus on first time assignment. For example, a lieutenant going to MLRS would receive training on that system and no other. Indications out of the task analysis are that the only way to get a Field Artillery Lieutenant trained on the system of his first assignment with-in the confines of a 13.4 POI will be "track training". Each lieutenant will get a curriculum that is common to all artillerymen and then broken off to his "track" to learn the system of his next assignment. This is a departure from current methodology, which teaches multiple systems with the lieutenant being "tracked" only during the last two weeks of OBC on the weapon of his next assignment. POI development for BOLC Phase II will commence sometime during June of 2002. The implications for the training of Marine lieutenants will not fully be known until the final POI is produced, however, irrespective of that POI the task and skills that were identified for the Marine Follow-on will be trained. The only question is whether "Track" training will produce further efficiencies in the BOLC POI enabling some of instruction that fell out of the current BOLC POI to be put back in. In essence, "Track" training may shorten the Marine only follow-on. We will continue to keep the Fleet apprized of developments in school as they occur and ensure that a quality Field Artillery Officer is to the Fleet. Continuous feedback is solicited on all our POIs in order to improve the quality of the Marine hitting the Fleet. For additional information or feedback please contact Major Peterson, Chief of the Cannon Division (DSN 639-3103) or Lt Col Lane, XO of the Marine Detachment (DSN 639 - 6498).



UNCLASSIFIED
MCCDC Information Paper
LtCol Brian D. Kerl, 26 Feb 02



NSFS REQUIREMENT LETTER

Purpose. To provide background information on the changes from the LtGen Rhodes NSFS letter of 99 and the updated letter for CG, MCCDC signature.

Discussion

- Hanlon letter retains the parameters and requirements of Rhodes letter.
- Hanlon letter recommends Capstone Requirements Document for NSFS.
- Hanlon letter is linked to Navy Spiral Design Review Process for Surface Combatant Family of Ships (SCFOS).
- Hanlon letter recommends evolutionary development to meet USMC NSFS requirements (Near, Mid, and Far-Term) in order to enable the Navy to more realistically meet those requirements.
- Hanlon letter adds or clarifies the following from the Rhodes letter:
 - o Focus on effects, not specific systems or munitions.
 - o Volume Fires is better defined. Neither letter quantifies volume of fires in specific numbers of rounds required or duration of fires. However, letter adds reference to a series of studies useful to articulate the need for volume fires.
 - o Range Metrics more operationally based.
 - o Sea-based sustainment linked to joint fires task of sustained fire support operations.
 - o Reinforces DPG Transformation.
 - o Provides additional depth to combined arms discussion.
 - o Defines the roles of NSFS.
 - o Highlights how FSCC/SACC is responsible for mission coordination, not the ship's Captain.
 - o Provides metrics for the near, mid and far term periods to accommodate the SCFOS review process.
 - o Provides illustrated scenario to highlight combined arms and the importance of volume fires.
 - o Provides clarification on battery equivalency and need for massed fires.
 - o Added detailed discussion on the difference between precision, guided, and unguided munitions and the need for low cost, volume fires and precision requirements.
 - o Added discussion on "minimizing time of flight" requirement to address the potential of loitering munitions.

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DSN: 278-621

TARGET ACQUISITION UPDATE

Target Acquisition Integrated Product Team Conference. The annual Target Acquisition Integrated Product Team Conference will be held here at Fort Sill, Ok from 7-9 May. The purpose of this conference is to address issues and items of professional interest to the Target Acquisition Officer (MOS 0803). The conference has become a forum for keeping the community abreast of new developments in systems and equipment acquisitions, doctrine, training, and manpower topics. Recommendations on issues or problems emanating from discussions, which are not resolvable within the community itself, may be forwarded to the artillery commanders for consideration. This years topics include a Improved Position and Azimuth Determining System (IPADS) demo, a Handheld Terminal Unit (HTU) / AFATDS interoperability demo, and briefs on the Ground Weapon Locating Radar (GWLRL), Multi-Role Radar System (MRRS), Q-47 radar, Met Profiler system, HIMARS, TLDHS, and GPS III. On conclusion of the conference, issues with recommendations will be documented and submitted to the CG Marine Corps Combat Development Command for appropriate adjudication.

Marine Artillery Survey Operations, MCWP 3-16.7. This warfighting publication has been in development for several years and is now available for use. "MCWP 3-16.7, Marine Artillery Survey Operations, sets forth the doctrinal foundation and technical information that Marines need to provide accurate and timely survey support. It covers a broad spectrum of issues from general knowledge to Marine-specific equipment." Printed copies will be issued to battalion and regimental survey sections or may be obtained from MCLB Albany, GA or downloaded from the web at: <http://www.doctrine.usmc/mil>.

GPS and CRYPTO KEYS. Since the former President of the United States ordered Selective Availability (SA) be turned off last year, many users of the PLGR don't think they need to load crypto keys. Wrong! In June of 2000, the President directed that SA be turned off. SA is the intentional error in the GPS signal that prevents civilian GPS receivers from being accurate in order to prevent our adversaries from targeting us with our own technology. GPS has virtually become a utility that is now used across many applications in the civilian sector. Political and economic interests lobbied the President to turn off SA to improve the accuracy of GPS and ensure continued growth of the US GPS industry, which he did. What about the protection of our forces?

First, we must understand that GPS was always intended to be a dual use technology. It would provide service to the military and civilian sectors. All GPS satellites send out the same signals that provide two services: The Precise Positioning Service (PPS) and the Standard Positioning Service (SPS.) Only the military and DOD authorized users have access to PPS but only when crypto keys have been loaded into the receivers, otherwise the receiver will use the SPS. If the PLGR is used to position artillery, crypto keys must be used IAW the Department of the Army's White Letter, dated 4 Dec 2000. The SPS is intended for civilian use and prior to the Presidents Directive, did not yield the same accuracies as PPS receivers like the PLGR. SPS is more susceptible to jamming or spoofing (false signals.) With SA off, the accuracies of SPS and PPS receivers appear to be equal.

The Presidential Directive turning SA off also gave authorizes the DOD to turn it back on in time of National Crisis or in Operational areas where our forces may be deployed. DOD has established new mechanisms to protect the military use of GPS in a particular AO and can target the AO to deny the use of PPS and SPS by our enemies. No crypto, no GPS, it's that simple. GPS jamming poses a real threat not only to our forces but the civilian segment as well. Jamming devices are available on the web and business must be doing well because one Russian company now offers several different models. Using crypto keys reduces the effects of jamming and spoofing, and allows the use of PPS.

Sure, not loading your PLGR with CRYPTO KEYS or using that commercial off the shelf GPS receiver during training exercises in 29 Palms may work just fine but it's not conditioning or preparing your Marines to use GPS to help fight and win the next war.

When submitting your manuscript ensure all acronyms are spelled out the first time. Mail manuscript hard copy along with a disk in Microsoft Word format to:

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or transmit article by FAX or EMAIL to the Detachment.