



Technical Equipment Maintenance Division, Ministry of Defence Air Engineering Unit

ENGINEER (NON-DESTRUCTIVE TESTING)

VACANCY: 1

SECTION / UNIT: OVERHAUL BAY

JOB DESCRIPTION (NOT LIMITED TO THE LIST BELOW):

The Engineer Non-Destructive Testing (NDT) is responsible to the Senior Staff Engineer Overhaul Bay through and ultimately to the Squadron Commander Engineering Support Flight (ESS) and Chief Engineer (CE) in providing professional engineering and maintenance services, using safe working practices on Aircraft and associated component in accordance with TUDB Technical Publications and associated references. He/She will be tasked under supervision to carry out NDT requirement using different methods on aircraft component or structure, including 3rd line/Depot level (overhaul) maintenance of all major components (i.e. BO 105 main transmission, Bell 206/BO105 main rotor hub assembly, all TUDB aircraft fleets' wheel/tyre & brake, S70i Spindle & Damper Assembly, Hydraulic flight control servos/actuators). The organisation (Air Engineering Unit TEMD) may call upon him/her to perform other suitable duties as required from time to time.

- To conduct themselves in a professional manner, be prompt for duty and exercise due diligence in all aspects of aviation maintenance activities.
- Ensuring that they are suitably trained and appropriately authorised before undertaking unscheduled/scheduled maintenance activity.
- Maintaining engineering standards and practices and ensuring all activities are carried out in accordance with Equipment Maintenance Manuals in conjunction with TUDB Technical Publications.
- Ensuring that all appropriate equipment documentation (including associated BAF and TUF forms) is raised for all defects arising from unscheduled/scheduled maintenance and that documentation is correct and signed for after each task or at the cease work.
- The appropriate use of all aviation associated spares for their assigned Maintenance activities and bringing to the attention of the Senior Staff Engineer any spares that are likely to stop any maintenance activities.
- The progression of their assigned Maintenance activities to ensure target times or dates are met and bringing to the attention of the Senior Staff Engineer any foreseeable problems which may affect such target times or dates.
- Adherence of Quality Assurance Procedures to ensure all aircraft and associated component is properly maintained.



- Adherence of correct tool control procedures and the maintenance of all assigned calibrated equipment.
- Bringing to the attention of the Senior Staff Engineer all Flight Safety, technical, welfare and administrative issues including disciplinary matters.
- Adherence to all Health and Safety at Work Processes and Procedures as well as maintaining a clean FOD Free working environment.

REQUIRED TECHNICAL QUALIFICATIONS AND / OR EXPERIENCE:

- Successfully attended and passed the NDT (aerospace sector) courses (Penetrant Inspection Level 2, Magnetic Particle Inspection Level 2, Eddy Current Inspection Level 2 and Ultrasonic Inspection Level 2) at the training organization approved by the British Institute of NDT and/or holding valid NDT certifications that meet SNT-TC-1A, NAS 410, ASNT-CP-189 or BS EN 4179 standards.
- Very good knowledge and hands-on capabilities on aircraft major component/Airframe & Engine trade and other associated Overhaul/NDT Equipment for aircraft components.
- Demonstrate an understanding of Quality Assurance procedures in maintaining the airworthiness of the aircraft.
- Able to use or adapt to the existing BAF700 Aircraft maintenance documentation and other TUDB maintenance publications.
- Very good knowledge on Aircraft maintenance documentation using current available software. e.g. Russell Adam, Helotrac, Logistic Support System and other related software.
- Demonstrate an understanding of the Occupational Health and Safety (OHS), Flight safety (FS) – awareness of the hazards, which exist in the aviation industry, and the safety precautions to combat them, and take appropriate action in the event of emergency.
- Proven ability to work within a multidisciplinary team while also being able to multi-task, work with minimum supervision and possess a high level of technical knowledge and personal initiative
- Able to work outside normal working hours and on deployment to support TUDB operational and aircraft recovery maintenance requirement.
- Good communications and information technology skills.
- Strong analytical and problem-solving skills.

Note: Applicants are required to go through a practical test on subject of NDT for the selection process of this job vacancy.



MINIMUM EDUCATIONAL REQUIREMENTS:

- Degree/Master in Aviation/Aerospace (Airframe & Engine) field with 1 year of experience in Airframe & Engine overhaul related work.

or

Aircraft License Engineer A&E (2 Cat)/ Higher National Diploma/Diploma level 5 in Aviation/Aerospace (Airframe & Engine) with 6 years of experience in Airframe & Engine overhaul related work.

or

Aircraft License Engineer A&E (1 Cat)/ Higher National Certificate in Aviation/Aerospace (Airframe & Engine) with 9 years of experience in Airframe & Engine overhaul related work.

or

Specialist Certificate or equivalent/C & G/National Diploma/Diploma level 4 in Aviation/Aerospace (Airframe & Engine) field with 11 years of experience in Airframe & Engine overhaul related work.

OTHER REQUIREMENTS:

- Proven ability to work within a multidisciplinary team while also being able to multi-task, work with minimum supervision and possess a high level of technical knowledge and personal initiative
- Able to work outside normal working hours and on deployment to support TUDB operational and aircraft recovery maintenance requirement.
- Strong analytical and problem-solving skills.

WORKING ENVIRONMENT:

- Hydraulic and pneumatic pressure up to 3000 psi.
- Expose to harmful chemical fluid, Petrol, Oil, Lubricant and adhesive.
- Lifting heavy equipment and utilizing overhead crane SWL 1 Ton.
- Working at height and confined space.
- Aviation standard safe working culture.
- Noise and heat hazard.
- Airborne flight maintenance test.



Bahagian Pemeliharaan Kelengkapan Teknikal, Kementerian Pertahanan Unit Kejuruteraan Udara

JURUTERA (*Non-Destructive Testing*) KEKOSONGAN: 1 SEKSYEN / UNIT: BENGKEL *OVERHAUL*

BIDANG TUGAS (TIDAK TERHAD KEPADA SENARAI DIBAWAH):

Jurutera *Non-Destructive Testing (NDT)* bertanggungjawab kepada Jurutera Staf Kanan *Overhaul Bay* dan seterusnya kepada Pemerintah Skuadron, Skuadron Kejuruteraan Bantu dan Ketua Jurutera, dalam memberikan perkhidmatan kejuruteraan dan khidmat penyelenggaraan yang profesional, mengamalkan amalan kerja yang selamat terhadap pesawat dan komponen yang berkaitan berpandukan tatacara pemeliharaan teknikal TUDB dan rujukan rujukan yang berkaitan. Beliau ditugaskan di bawah pengawasan bagi keperluan pemeriksaan NDT dengan menggunakan pelbagai cara (*method*) keatas komponen dan struktur pesawat, termasuk membuat penyelenggaraan berjadual dan tidak berjadual barisan ketiga keatas komponen komponen besar pesawat terbang TUDB (BO105 main transmission, Bell 206/BO105 main rotor hub, brek & roda pesawat, Spindle dan damper pesawat S70i, serta Alat kawalan penerbangan yang menggunakan *hydraulic*). Pihak Unit Kejuruteraan Udara akan memberikan beliau tugas-tugas lain yang sesuai dari semasa ke semasa jika dikehendaki.

- Melaksanakan tugas secara professional, segera dan melakukan segala usaha yang wajar dalam semua aspek aktiviti penyelenggaraan penerbangan.
- Memastikan bahawa diri mereka telah diberikan latihan yang sesuai dan diberikan kuasa sebelum menjalankan aktiviti penyelenggaraan.
- Mengekalkan amalan-amalan dan piawaian kejuruteraan dan memastikan semua aktiviti dijalankan berpandukan tatacara-tatacara pemeliharaan kelengkapan teknikal TUDB.
- Memastikan semua dokumentasi kelengkapan (termasuk borang BAF dan TUF) dibuat dengan betul dan ditandatangani untuk semua penyelenggaraan berjadual / tidak berjadual setelah kerja selesai.
- Menggunakan alat ganti penerbangan yang sesuai yang berkaitan untuk aktiviti pemeliharaan dan memaklumkan kepada Jurutera Staf Kanan mengenai perkara yang dapat menghalang sebarang aktiviti pemeliharaan.
- Memastikan aktiviti pemeliharaan yang ditugaskan dapat disempurnakan mengikut tarikh dan masa yang ditetapkan dan memaklumkan Jurutera Staf Kanan tentang sebarang masalah yang boleh menjejaskan tarikh dan masa tersebut.



- Memastikan semua pesawat dan komponen yang berkaitan diselenggara dengan betul mengikut Prosedur-prosedur 'Quality Assurance'.
- Mengamalkan tatacara *Tool Control* yang betul dan memastikan alat sukatan dan ujicuba (*Test and Measuring*) dikalibrasi.
- Memaklumkan Jurutera Staf Kanan semua perkara mengenai Keselamatan Penerbangan, teknikal, kebajikan dan isu-isu pentadbiran termasuk tatatertib.
- Mematuhi proses dan prosedur Kesihatan dan keselamatan kerja serta memelihara tempat kerja yang bersih dan bebas 'FOD'.

KELAYAKAN DAN / ATAU PENGALAMAN TEKNIKAL YANG DIPERLUKAN:

- Telah menghadiri dan lulus kursus-kursus *NDT (aerospace sector)* iaitu (*Penetrant Inspection Level 2, Magnetic Particle Inspection Level 2, Eddy Current Inspection Level 2 and Ultrasonic Inspection Level 2*) di tempat latihan yang diluluskan/diiktiraf oleh British Institute of NDT dan/atau mempunyai kelayakan NDT yang sah selaras dengan piawaian SNT-TC-1A, NAS 410, ASNT-CP-189 or BS EN 4179.
- Mempunyai pengetahuan yang sangat baik dan berpengalaman dalam penyelenggaraan kepakaran *Airframe & Engine* pesawat dan komponen berkaitan serta NDT dan Overhaul.
- Mempunyai kefahaman mengenai prosedur-prosedur *Quality Assurance* dalam mengekalkan kelayakan terbang (*Airworthiness*) pesawat terbang.
- Boleh atau dapat menyesuaikan diri dengan dokumentasi penyelenggaraan pesawat BAF700 dan buku buku panduan tatacara pemeliharaan TUDB.
- Mempunyai pengetahuan yang sangat baik mengenai dokumentasi penyelenggaraan pesawat BAF700 yang menggunakan perisian terkini yang tersedia seperti Russell Adam, Helotrak, Logistic Support System dan perisian lain yang berkaitan.
- Mempunyai pemahaman tentang Kesihatan dan Keselamatan Pekerjaan (*OHS*), keselamatan penerbangan (*FS*) - kesedaran tentang bahaya yang wujud dalam industri penerbangan, dan langkah-langkah keselamatan untuk menanganinya, dan mengambil tindakan sewajarnya sekiranya berlaku kecemasan.
- Mempunyai kemahiran komunikasi dan kemahiran teknologi maklumat yang baik.



KELULUSAN AKADEMIK MINIMA:

- Ijazah Sarjana/Ijazah Sarjana Muda dalam bidang *Aviation/Aerospace (Airframe & Engine)* dengan 1 tahun pengalaman kerja didalam jurusan yang berkaitan dengan *Airframe & Engine Overhaul*

atau

Jurutera Pesawat Berlesen (2 Cat)/Diploma Tertinggi Kebangsaan / Diploma level 5 dalam bidang *Aviation/Aerospace (Airframe & Engine)* dengan 6 tahun pengalaman kerja di jurusan yang berkaitan dengan *Airframe & Engine Overhaul*.

atau

Jurutera Pesawat Berlesen (1 Cat)/Sijil Tertinggi Kebangsaan dalam bidang *Aviation/Aerospace (Airframe & Engine)* dengan 9 tahun pengalaman kerja di jurusan yang berkaitan dengan *Airframe & Engine Overhaul*.

atau

Sijil Pakar atau yang sebanding/C & G/Diploma Kebangsaan / Diploma level 4 dalam bidang *Aviation/Aerospace (Airframe & Engine)* dengan 11 tahun pengalaman kerja di jurusan yang berkaitan dengan *Airframe & Engine Overhaul*.

KEPERLUAN LAIN-LAIN:

- Mempunyai keupayaan untuk bekerja dalam satu pasukan pelbagai jurusan dan tugas, bekerja dengan kawal selia yang minima dan mempunyai pengetahuan teknikal dan inisiatif peribadi yang tinggi.
- Boleh bekerja di luar waktu bekerja biasa dan bertugas di luar bagi membantu keperluan operasi dan penyelenggaraan pemeliharaan *'recovery'* pesawat TUDB.
- Mempunyai kemahiran menyelesaikan masalah.



SUASANA TEMPAT BEKERJA:

- Tekanan *Hydraulic* dan *pneumatic* menjangkau ke paras 3000 psi.
- Terdedah kepada cecair, gas dan bahan-bahan yang boleh memudaratkan kesihatan iaitu *Chemical, Petrol, Oil, Lubricant* dan *Adhesive*.
- Kerja-kerja yang memerlukan angkat dan pindah kelengkapan berat serta penggunaan *Overhead crane* dengan kadar angkatan selamat 1 ton.
- Berkerja di kawasan yang tinggi dan kawasan sempit.
- Membudayakan suasana kerja selamat dengan berpandukan kepada Piawaian Penerbangan (*Aviation Standard*).
- Risiko bunyi bising dan kepanasan tempat kerja.

Nota: Pemohon-pemohon dikehendaki mengikut peperiksaan praktikal NDT bagi jawatan kosong ini.