Tower

In general, Military Airfields work a little different to the airports that you might be familiar with. They have a control tower and a radar station that you might call approach. However, the radar airspace is not nearly as high as the approach airspace you are familiar with. But first we will look at the Tower position.

Just like a DFS TWR, the military TWR is in control of a CTR and all ground movements. However, it cannot issue IFR clearances. Instead IFR clearances are requested at the responsible DFS station via telephone. First, the DFS station transmits the clearance to the military TWR that reads it back. Then the military TWR transmits the clearance to the pilot, who reads it back to the TWR. In real life the military TWR first calls the military Radar who then calls the DFS station, but I think we can skip this step ;)

IFR clearances are similar to those you are used to. They simply contain the point that the aircraft is cleared to, "first fix" (A fix somewhere on the flight plan), the SID/OID, a squawk and instructions whom to contact when airborne. They may contain a flight level but that is often left blank for convenience. Military Aircraft usually aren't instructed to follow a SID but an OID (operational instrument departure) which is similar to a SID. They are usually named with the last two letters of the ICAO code of the airport and a number (e.g. NL19, pronounced November-Lima-one-niner). You can find these on Navigraph and in the AIP. However, if the SIDs have names or if the aircraft is flying according to a civil aviation flight plan (fixes and airways) then you should assign a SID if available (like ETOU).

Furthermore, military airfields rarely have multiple taxiways and if they do, they have standardized taxi routes. Therefore, you do not need to name taxiways when giving the taxi clearance. You also have to ask the DFS radar station for a departure release before issuing a takeoff clearance due to the low radar airspace.

Another specialty of Military TWRs is that the wind is given during line up and take off. This is because especially formation flights have a lower crosswind limits for formation takeoffs and the pilots need to know before line up if they can depart as a formation or if they need to depart individually.

As opposed to normal TWRs, military TWRs do not offer an ATIS. Instead, the weather information is given as a color code. Additionally, the QNH and the active runway have to be communicated to the pilot. The color codes and the respective weather are listed below. In case the visibility and cloud ceiling color do not match, the color corresponding to the worst weather of the two is published.

- **Blu+:** cloud ceiling (more than half of the sky is covered) below 20000ft. (not BKN or OVC below 20000ft)
- **Blu:** visibility 8000m, cloud ceiling at least 2500ft

- **WHT:** visibility 5000m, cloud ceiling at least 1500ft
- **GRN:** visibility 3700m, cloud ceiling at least 700ft
- **YLO1:** visibility 1600m, cloud ceiling at least 500ft
- **YLO2:** visibility 1600m, cloud ceiling at least 1600ft
- **AMB:** visibility 800m, cloud ceiling at least 800ft
- **Red:** visibility less than 800m, clould ceiling less than 200ft or VV//
- **Black:** Runway closed for other reason than weather

White is still considered sufficient for VMC operations while Green requires IFR procedures.

Below you find an example IFR flight from initial call to handoff to the military radar. We assume the pilot has filed a flight plan which he should do.

Station	IFR from startup to departure
GAF123	ETNT_TWR, GAF123, Moin
ETNT_TWR	GAF123, ETNT_TWR, Moin
GAF123	GAF123, request taxi
ETNT_TWR	GAF123, taxi to holding point runway 26, QNH 1013
GAF123	GAF123, taxi to holding point runway 26, QNH 1013
During Taxi ETNT_TWR calls EDWW_B_CTR	
EDWW_B_CTR	Moin
ETNT_TWR	Moin, ETNT_TWR, request clearance for GAF123
EDWW_B_CTR	GAF123 is cleared to Schleswig via EMPIT, squawk 2116
ETNT_TWR	GAF123 is cleared to Schleswig via EMPIT, squawk 2116
EDWW_B_CTR	correct
Back on frequency	
ETNT_TWR	GAF123 report ready to copy clearance
GAF123	GAF123, ready
ETNT_TWR	GAF123, cleared to Schleswig via NT126 left turn EMPIT, squawk 2116, when airborn contact ETNT_APP on xxx.xxx

Station	IFR from startup to departure
GAF123	GAF123, cleared to Schleswig via NT126 left turn EMPIT, squawk 2116, when airborn contact ETNT_APP on xxx.xxx
ETNT_TWR	GAF123, readback correct
Pilot reaches runway and performs pre-departure checks. After pre-departure checks	
GAF123	GAF123, ready
ETNT_TWR	GAF123, line up runway 26, wind 25005kts
GAF123	GAF123, line up runway 26
Meanwhile on the phone...	
EDWW_B_CTR	Moin
ETNT_TWR	Moin, request departure release for GAF123
EDWW_B_CTR	GAF123 released to climb FL70
ETNT_TWR	GAF123 released to climb FL70
Back on frequency	
ETNT_TWR	GAF123, climb FL70, wind 25005kts, runway 26 cleared for takeoff
GAF123	GAF123 climb FL70, wind 25005kts, runway 26 cleared for takeoff
After take off	
ETNT_TWR	GAF123 contact Wittmund Radar on 123.125
GAF123	GAF123 contact Wittmund Radar on 123.125

After this the Radar will identify the aircraft before handing the aircraft over to the responsible DFS station.