

HiveForce Labs

THREAT ADVISORY



ATTACK REPORT

Gamaredon Tools Revive Turla's Kazuar Backdoor to Target Ukraine

Date of Publication

September 23, 2025

Admiralty Code

A1

TA Number

TA2025291

Summary

Attack Commenced: January 2025

Threat Actors: **Gamaredon** (aka Primitive Bear, Winterflounder, BlueAlpha, Blue Otso, Iron Tilden, Armageddon, SectorC08, Callisto, Shuckworm, Actinium, Trident Ursa, DEV-0157, UAC-0010, Aqua Blizzard), **Turla** (aka Waterbug, Venomous Bear, Group 88, SIG2, SIG15, SIG23, Iron Hunter, CTG-8875, Pacifier APT, ATK 13, ITG12, Makersmark, Krypton, Belugasturgeon, Popeye, Wraith, TAG-0530, UNC4210, SUMMIT, Secret Blizzard, Pensive Ursa)

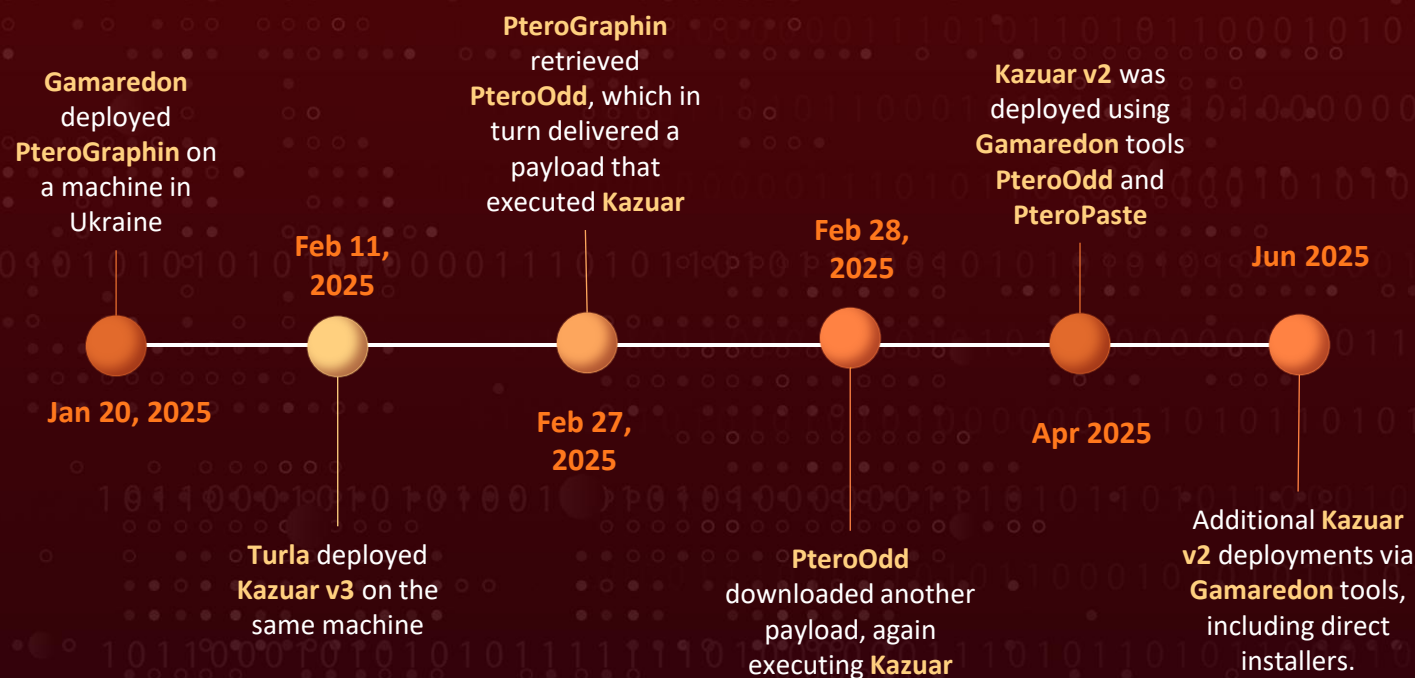
Malware: Kazuar backdoor, PteroOdd

Targeted Country: Ukraine

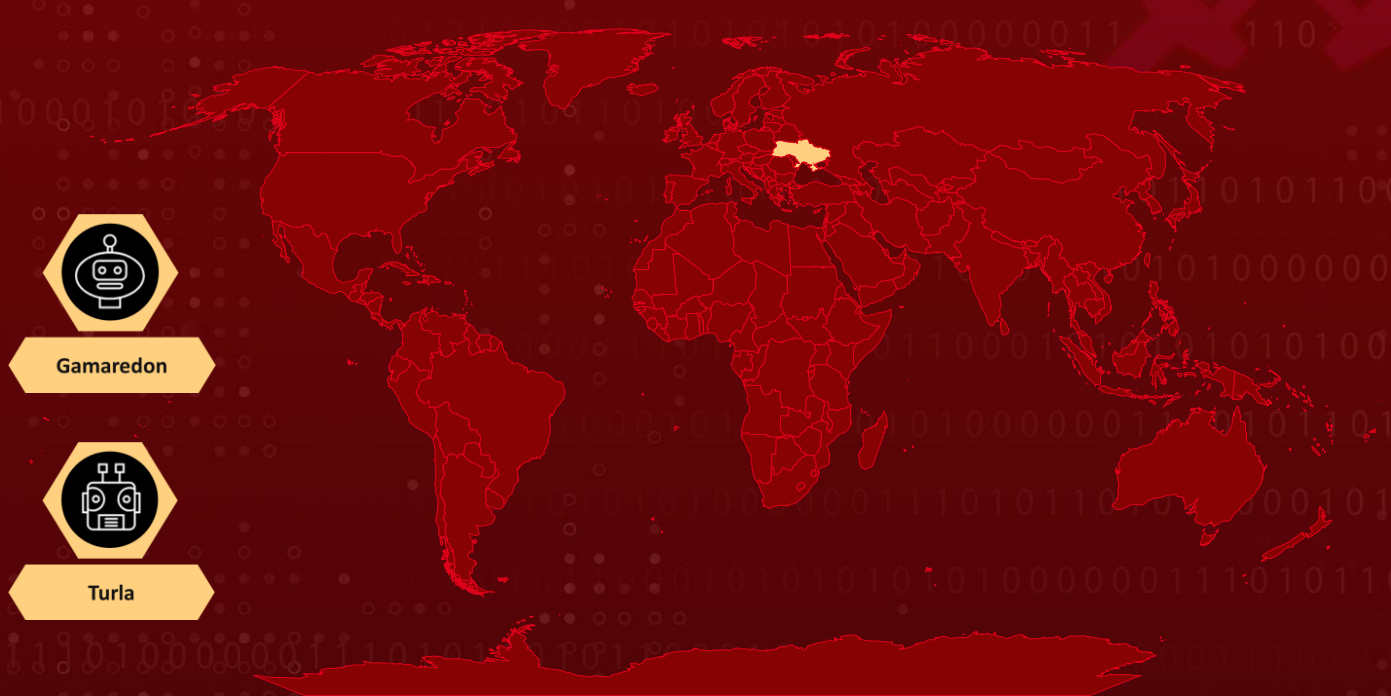
Targeted Industries: Government, Defense, Diplomatic Entities

Attack: Turla and Gamaredon, two long-standing cyber-espionage groups linked to Russia's Federal Security Service (FSB), have intensified joint operations against Ukraine, combining Turla's sophisticated Kazuar backdoor with Gamaredon's expanding Ptero toolset. A recent 2025 campaign showcased how their collaboration bridges broad access with deep, sustained espionage, underscoring the growing convergence of Russia's intelligence arms in pursuit of strategic objectives.

Attack Timeline



✂ Attack Regions



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Attack Details

#1

Turla and Gamaredon, two threat groups linked to the Russian Federal Security Service (FSB), have been observed conducting coordinated cyber operations against Ukraine. Both groups, tied to Moscow's intelligence structure, bring distinct capabilities that, when combined, create a potent espionage partnership.

#2

Turla has been active since at least 2004, with possible origins tracing back to the late 1990s. Gamaredon has operated since 2013 and is noted for persistent campaigns against Ukrainian organizations. Turla is attributed to the FSB's Center 16, the agency's primary signals intelligence unit, while Gamaredon is believed to be operated from Center 18, which is tied to counterintelligence operations.

#3

In February 2025, Gamaredon deployed multiple tools, including PteroLNK, PteroStew, PteroOdd, PteroEffigy, and the PowerShell-based PteroGraphin. During this campaign, PteroGraphin was used to restart Turla's **Kazuar** v3 backdoor, an advanced C# espionage implant exclusively linked to Turla since 2016. While the initial entry point remains unidentified, the incident illustrates how the two groups align their efforts: Gamaredon provides broad access through its toolset, while Turla leverages Kazuar for deeper, long-term espionage.

#4

Gamaredon continues to expand its Ptero family of tools, including PteroGraphin, PteroOdd, and PteroPaste, which are designed to deliver additional payloads. PteroGraphin, in particular, establishes persistence through Microsoft Excel add-ins and scheduled tasks, while using the Telegraph API for command-and-control. Together, these evolving capabilities underscore the convergence of Russia's intelligence branches in pursuing long-term strategic objectives in Ukraine.

Recommendations



Enhanced Endpoint Monitoring: Deploy advanced endpoint detection and response (EDR) solutions to identify suspicious activity related to Kazuar backdoor and other tools. Monitor for unusual execution of PowerShell scripts, scheduled tasks, and Microsoft Excel add-ins.



Network and C2 Traffic Analysis: Monitor outbound traffic for connections to known command-and-control channels, including the Telegraph API used by PteroGraphin. Implement anomaly detection for unusual network patterns indicative of exfiltration or lateral movement.



Segmentation and Access Controls: Isolate critical systems and sensitive networks to limit lateral movement. Use multi-factor authentication (MFA) and strict access controls for administrative and privileged accounts.



Patch Management and System Hardening: Ensure all endpoints and servers are up to date with security patches, particularly those running Microsoft Office and Windows environments. Enforce least-privilege policies to reduce the impact of compromised accounts.



Potential MITRE ATT&CK TTPs

<u>TA0042</u> Resource Development	<u>TA0001</u> Initial Access	<u>TA0002</u> Execution	<u>TA0003</u> Persistence
<u>TA0005</u> Defense Evasion	<u>TA0007</u> Discovery	<u>TA0011</u> Command and Control	<u>T1583</u> Acquire Infrastructure
<u>T1583.001</u> Domains	<u>T1583.004</u> Server	<u>T1583.007</u> Serverless	<u>T1584</u> Compromise Infrastructure
<u>T1584.003</u> Virtual Private Server	<u>T1608</u> Stage Capabilities	<u>T1059</u> Command and Scripting Interpreter	<u>T1059.001</u> PowerShell
<u>T1574</u> Hijack Execution Flow	<u>T1574.001</u> DLL	<u>T1140</u> Deobfuscate/Decode Files or Information	<u>T1480</u> Execution Guardrails
<u>T1480.001</u> Environmental Keying	<u>T1036</u> Masquerading	<u>T1036.005</u> Match Legitimate Resource Name or Location	<u>T1057</u> Process Discovery
<u>T1012</u> Query Registry	<u>T1082</u> System Information Discovery	<u>T1083</u> File and Directory Discovery	<u>T1071</u> Application Layer Protocol
<u>T1071.001</u> Web Protocols	<u>T1573</u> Encrypted Channel	<u>T1573.001</u> Symmetric Cryptography	<u>T1102</u> Web Service



Indicators of Compromise (IOCs)

TYPE	VALUE
SHA256	3ecb09e659bcb500f9f40d022579a09acb11aec3a92c03e7d3fd2e56982d9eea
Filenames	scrss.ps1, ekrn.ps1, Sandboxie.vbs



TYPE	VALUE
SHA1	7db790f75829d3e6207d8ec1cbcd3c133f596d67, 2610a899fe73b8f018d19b50be55d66a6c78b2af, 3a24520566bbe2e262a2911e38fd8130469ba830, da7d5b9ab578ef6487473180b975a4b2701fda9e, d7df1325f66e029f4b77e211a238aa060d7217ed, ff741330cc8d9624d791de9074086bbfb0e257dc, a7acee41d66b537d900403f0e6a26ab6a1290a32, 54f2245e0d3adec566e4d822274623bf835e170c, 371ab9eb2a3da44099b2b7716de0916600450cfd, 4a58365eb8f928ec3cd62ff59e59645c2d8c0ba5, 214dc22fa25314f9c0dda54f669ede72000c85a4
IPv4	64[.]176[.]173[.]164, 85[.]13[.]145[.]231, 91[.]231[.]182[.]187, 185[.]118[.]115[.]15, 77[.]46[.]148[.]242, 168[.]119[.]152[.]19, 217[.]160[.]0[.]33, 217[.]160[.]0[.]159
Domains	lucky-king-96d6[.]mopig92456[.]workers[.]dev, eset[.]ydns[.]eu, hauptschule-schwalbenstrasse[.]de, ekrn[.]ydns[.]eu, fjsconsultoria[.]com, ingas[.]rs, abrangeospatial[.]ir, www[.]brannenburger-nagelfluh[.]de, www[.]pizzeria-mercy[.]de

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<https://hivepro.com/threat-advisory/turla-updates-kazuar-backdoor-to-target-ukraines-defense-sector/>

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September 23, 2025 • 1:00 AM

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