

**Perbandingan Metode Koreksi Radiometri Landsat 8 Tahun 2015  
(Studi Kasus Koreksi Metode TOA (*Top Of Atmosphere*) BRDF (*Bidirectional Reflectance Distribution Function*) dan Koreksi Atmosfer Metode 6S (*Second Simulation of a Satellite Signal in the Solar Spectrum Vector*) pada Landsat 8 TIRS Path 119 Row 65)**

**INTISARI**

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Pemanfaatan data penginderaan jauh saat ini berkembang cepat seiring meningkatnya kebutuhan pemenuhan data spasial di Indonesia. Landsat 8 adalah salah satu citra satelit yang sering dimanfaatkan karena kemudahan perolehan data atau gratis. Hasil perekaman satelit berupa citra belum dapat dimanfaatkan secara langsung karena masih memiliki beberapa gangguan/*noise*. Beberapa *noise* dapat ditimbulkan karena perbedaan posisi matahari pada saat data diakuisisi, variasi sudut pantulan, dan gangguan atmosfer. Tujuan penelitian ini yaitu melakukan koreksi atmosfer citra Landsat 8 menggunakan metode 6S (*Second Simulation of a Satellite Signal in the Solar Spectrum – Vector*), membandingkan citra hasil koreksi TOA BRDF dengan hasil koreksi atmosfer, dan membandingkan pola spektral objek vegetasi, air, dan tanah setelah koreksi TOA BRDF dan koreksi atmosfer.

Koreksi atmosfer metode 6S dilakukan dengan cara melakukan simulasi atmosfer yang dijalankan pada software 6S untuk memperoleh koefisien parameter koreksi. Koreksi TOA BRDF dilakukan secara otomatis menggunakan software Sun\_Correct\_L8 milik LAPAN. Kedua metode koreksi dibandingkan berdasarkan pola spektral dan nilai pantulan pada objek vegetasi, air, dan tanah untuk mengetahui metode koreksi yang terbaik dalam mengurangi *noise*.

Perbandingan koreksi TOA BRDF dan koreksi atmosfer metode 6S dilakukan pada objek vegetasi, air, dan tanah. Hasil penelitian ini menunjukkan kurva pantulan spektral objek vegetasi, air, dan tanah pada citra terkoreksi TOA BRDF dan citra terkoreksi atmosfer memiliki pola spektral yang hampir sama akan tetapi pada pantulan saluran biru (0,452 – 0,512 $\mu$ m) citra terkoreksi atmosfer lebih rendah/menurun dibandingkan saluran biru citra terkoreksi TOA BRDF yang menunjukkan gangguan atmosfer telah diperbaiki.

**Kata Kunci:** TOA BRDF, Koreksi Atmosfer, 6S, Pola spektral, Landsat 8

**Comparison of Landsat 8 Radiometric Correction Method 2015  
(A Case Study of Correction Method of TOA (Top Of Atmosphere) BRDF  
(Bidirectional Reflectance Distribution Function) and Atmospheric  
Correction Method 6S (Second Simulation of a Satellite Signal in the Solar  
Spectrum Vector) on Landsat 8 TIRS Path 119 Row 65)**

**ABSTRACT**

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Utilization of remote sensing data is now rapidly growing with the increasing of fulfillment necessary of spatial data in Indonesia. Landsat 8 is one of satellite imagery which is oftenly used because of the ease of data acquisition or free. Satellite recording results in the form of imagery can not be used directly because they have some noise .Some noise can be caused due to differences of sun position at the time the data was acquired, the variation of reflectance angle, and atmospheric disturbances. The purpose of this study is to do atmospheric correction of Landsat 8 using 6S (Second Simulation of a Satellite Signal in the Solar Spectrum - Vector), comparing the image correction TOA BRDF with the results of atmospheric correction, and comparing the pattern of spectral object vegetation, water, and soil after correction TOA BRDF and atmospheric correction.

6S atmospheric correction method performed by atmospheric simulations which is run on software 6S for obtaining coefficient correction parameters. TOA BRDF correction used automatically by Sun\_Correct\_L8 software that belongs to LAPAN. Both methods compared based on the pattern of spectral correction and reflection on the value of the object of vegetation, water, and soil to determined the best method of correction in reducing noise.

Comparison of TOA BRDF correction and 6S atmospheric correction method performed on objects of vegetation, water, and soil. The results showed the spectral reflectance curve of the object of vegetation, water, and soil at TOA BRDF corrected image and the corrected image of the atmosphere had a spectral pattern which is similiar but in the reflection of the blue band (0,452 - 0,512 $\mu$ m) image correction had lower atmosphere / decrease, compared to the blue band TOA BRDF corrected image which is showed that the atmospheric disturbances have been corrected.

**Keywords:** TOA BRDF, Atmospheric Correction, 6S, Spectral pattern, Landsat 8