

KIC 011905761

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
011905761-01	OBS	No	3.580189	131.521211	105.3	12.000	9.7	-1.0	2.35	6745	2.42	3423.73
011905761-02	OBS	No	3.580738	133.221105	150.8	19.352	11.6	13.0	2.35	6745	2.90	3423.03

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011905761-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_NOFITS
011905761-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

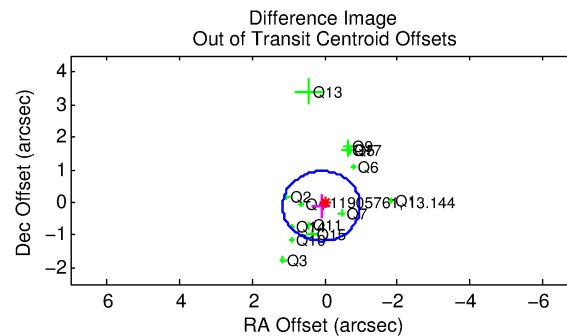
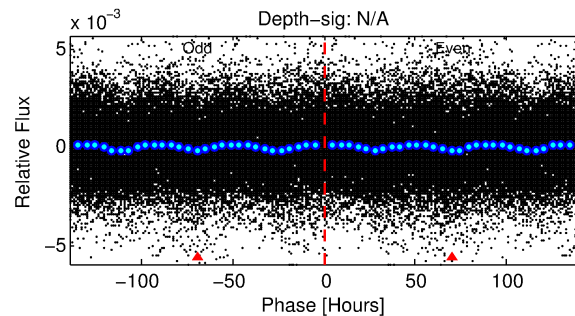
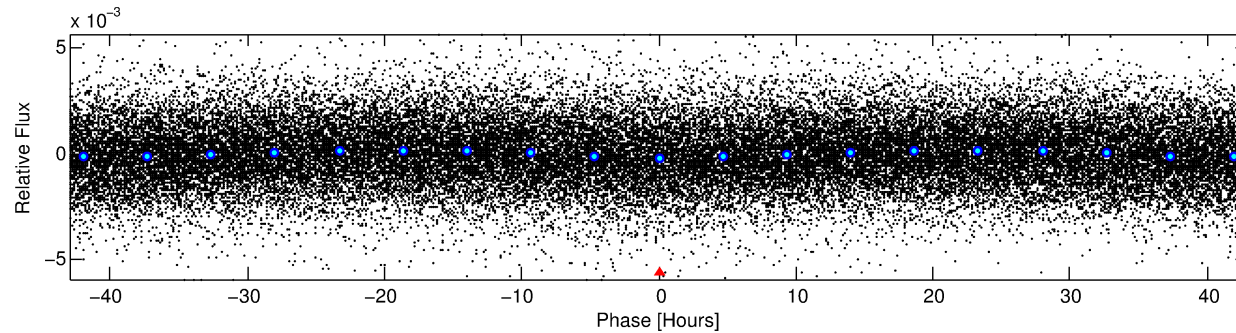
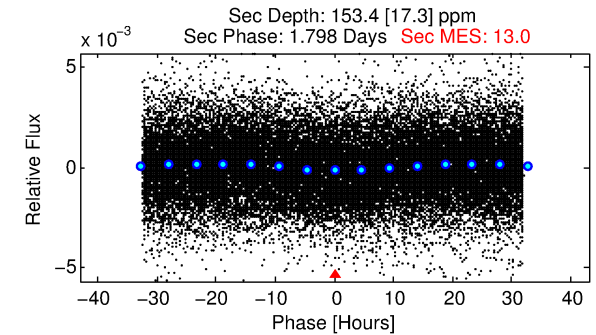
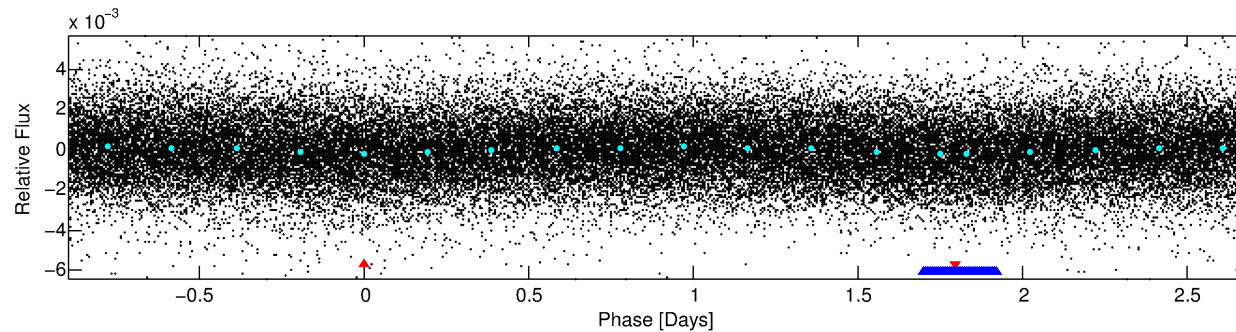
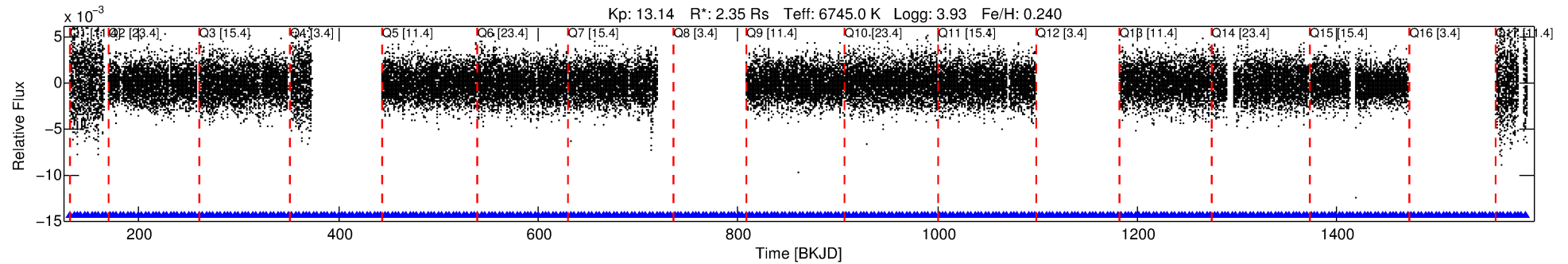
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011905761-01

No Significant Match Found

DV One-Page Summary

KIC: 11905761 Candidate: 1 of 2 Period: 3.580 d



TPS TCE Results:

Period = 3.58019 d
Epoch = 131.5212 BKJD

DV fit results are unavailable

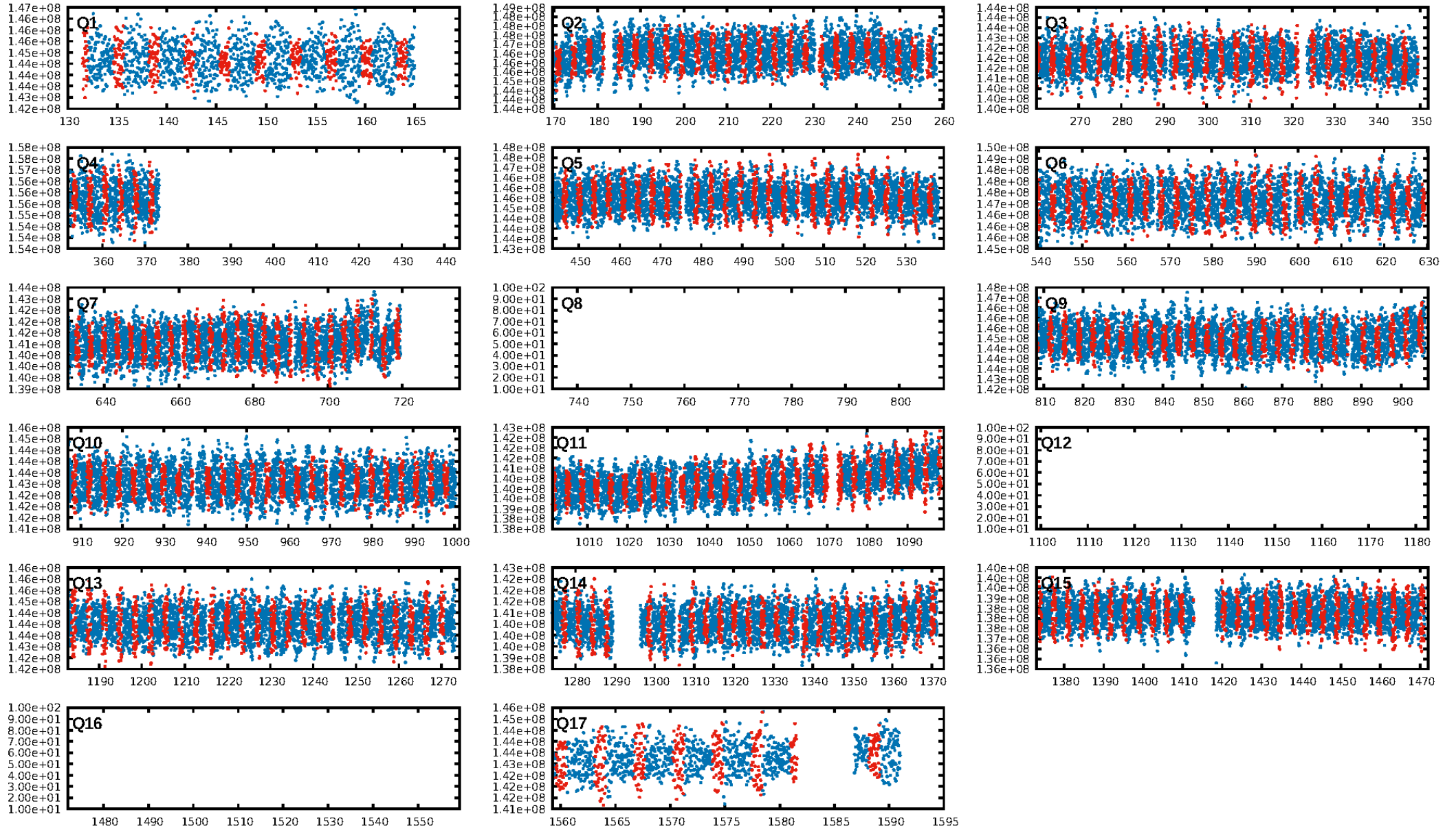
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [287/287]
GhostDiagnostic-chr: 0.9844
Centroid-sig: 0.0%
Centroid-so: 0.185 arcsec [1.86σ]
OotOffset-rm: 0.146 arcsec [0.41σ]
KicOffset-rm: 0.162 arcsec [0.40σ]
OotOffset-st: 4/4/1/5 [14]
KicOffset-st: 4/4/1/5 [14]
DiffImageQuality-fgm: 0.93 [13/14]
DiffImageOverlap-fno: 0.00 [0/14]

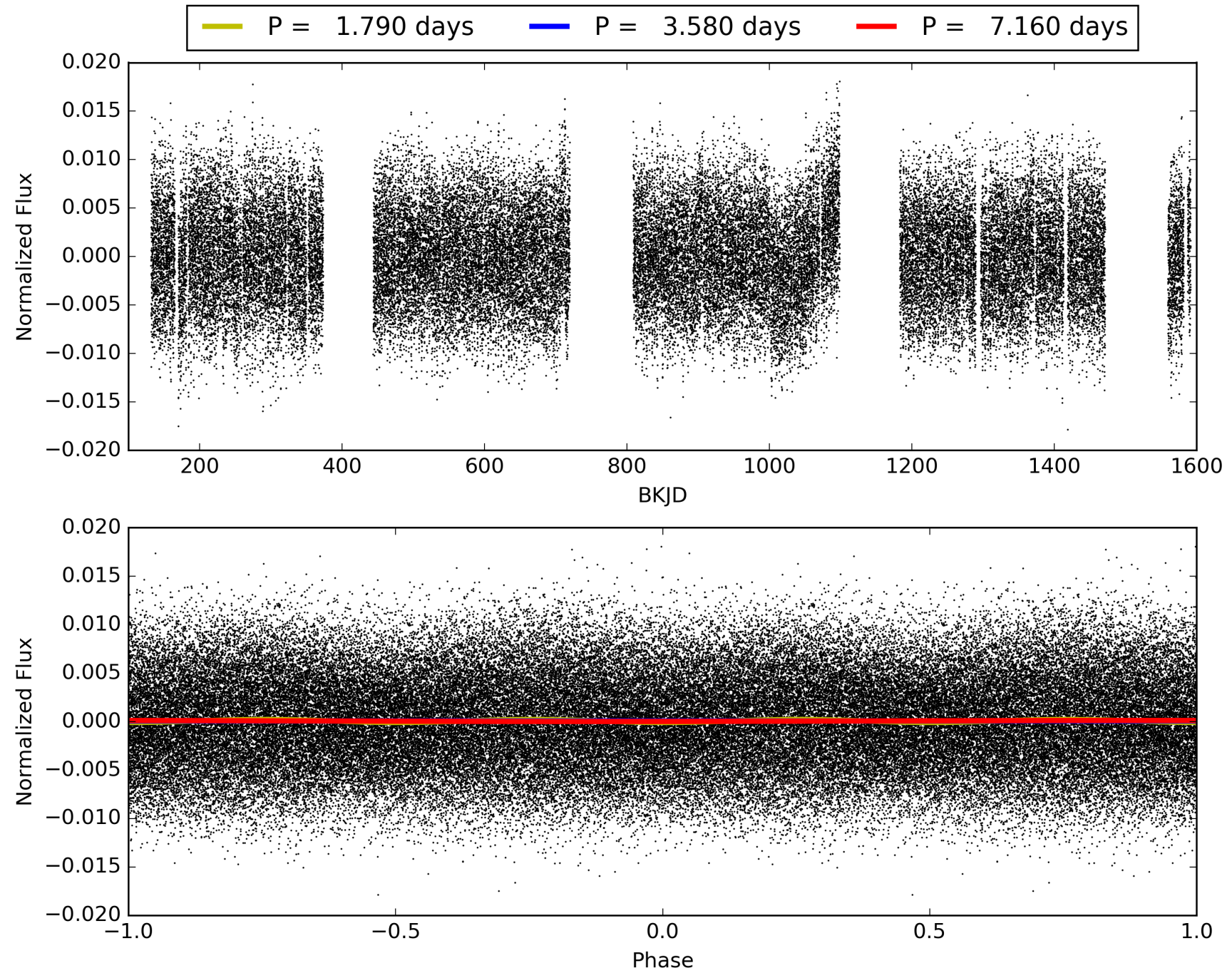
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 13:07:30 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011905761-01, PDC Light Curves

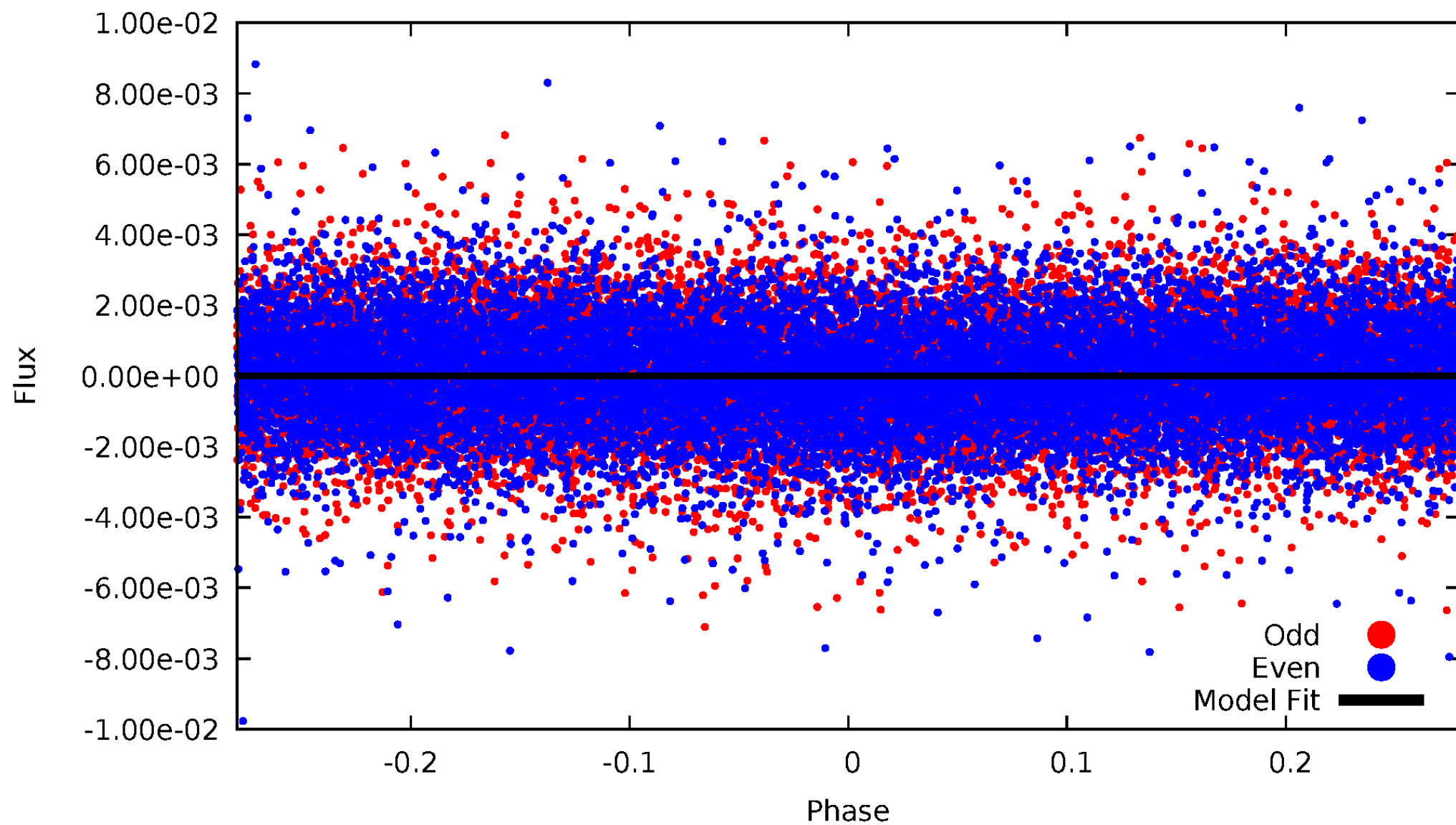


TCE 011905761-01



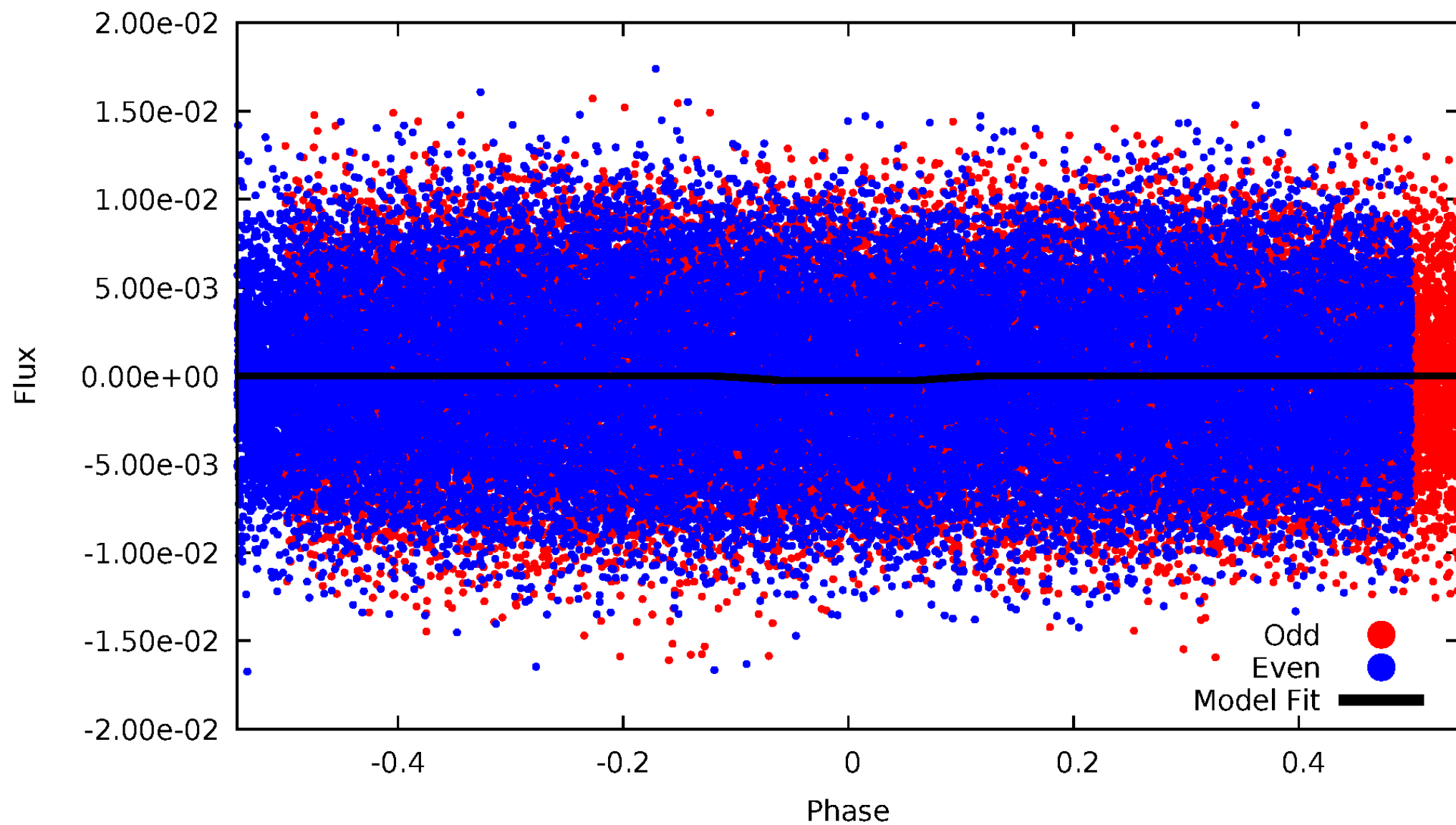
DV Odd/Even

TCE 011905761-01



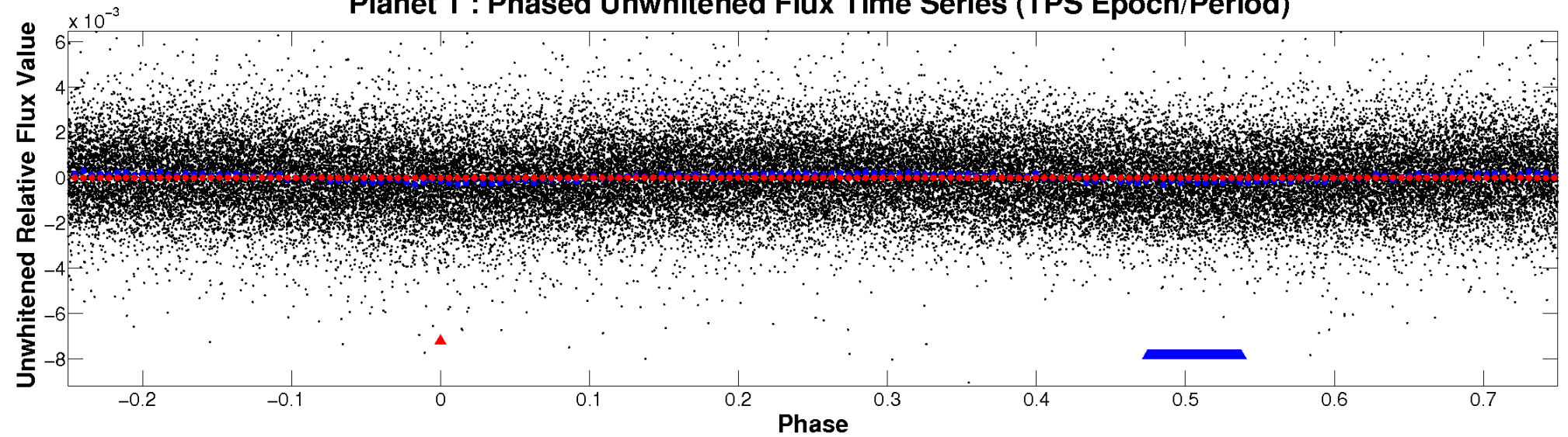
ALT Odd/Even

TCE 011905761-01

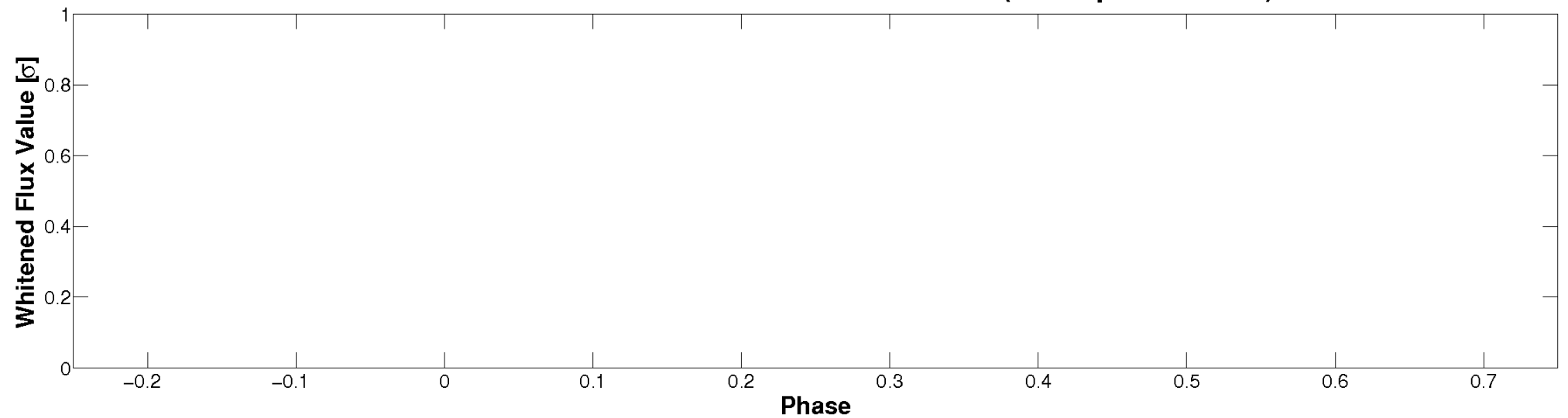


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

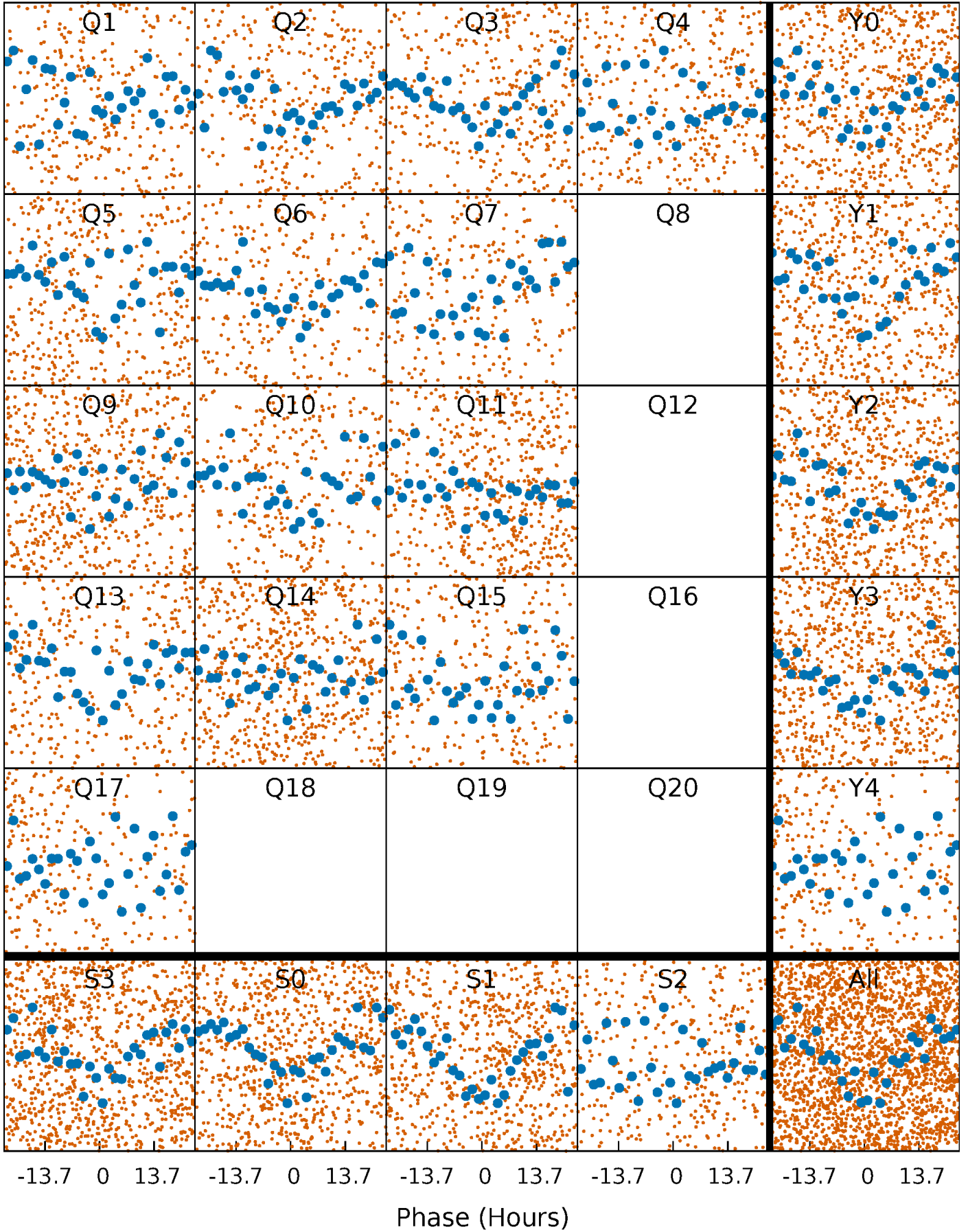


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



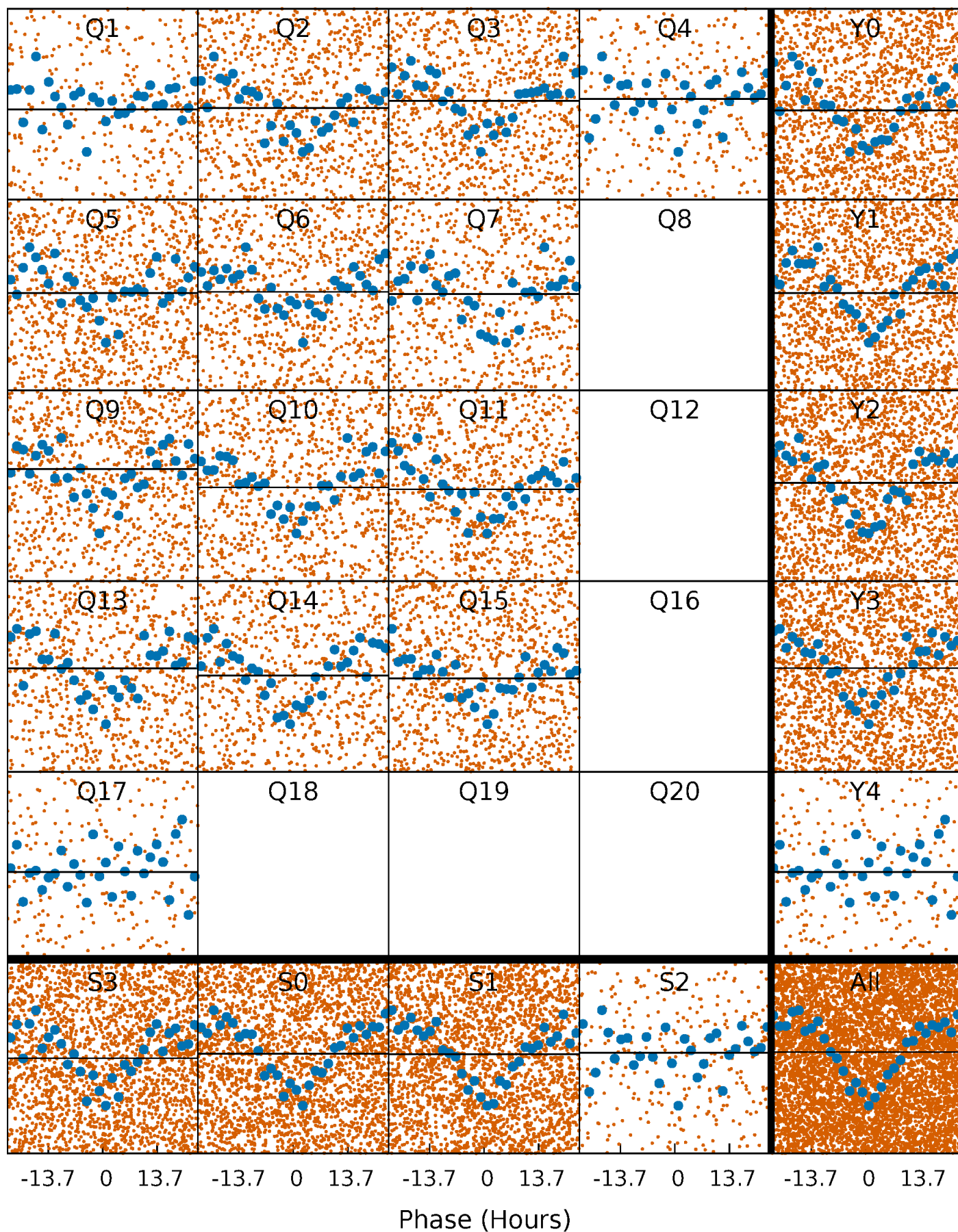
PDC Quarter-Phased Transit Curves

TCE 011905761-01 P= 3.580189 Days $T_0=131.521211$ (BKJD)



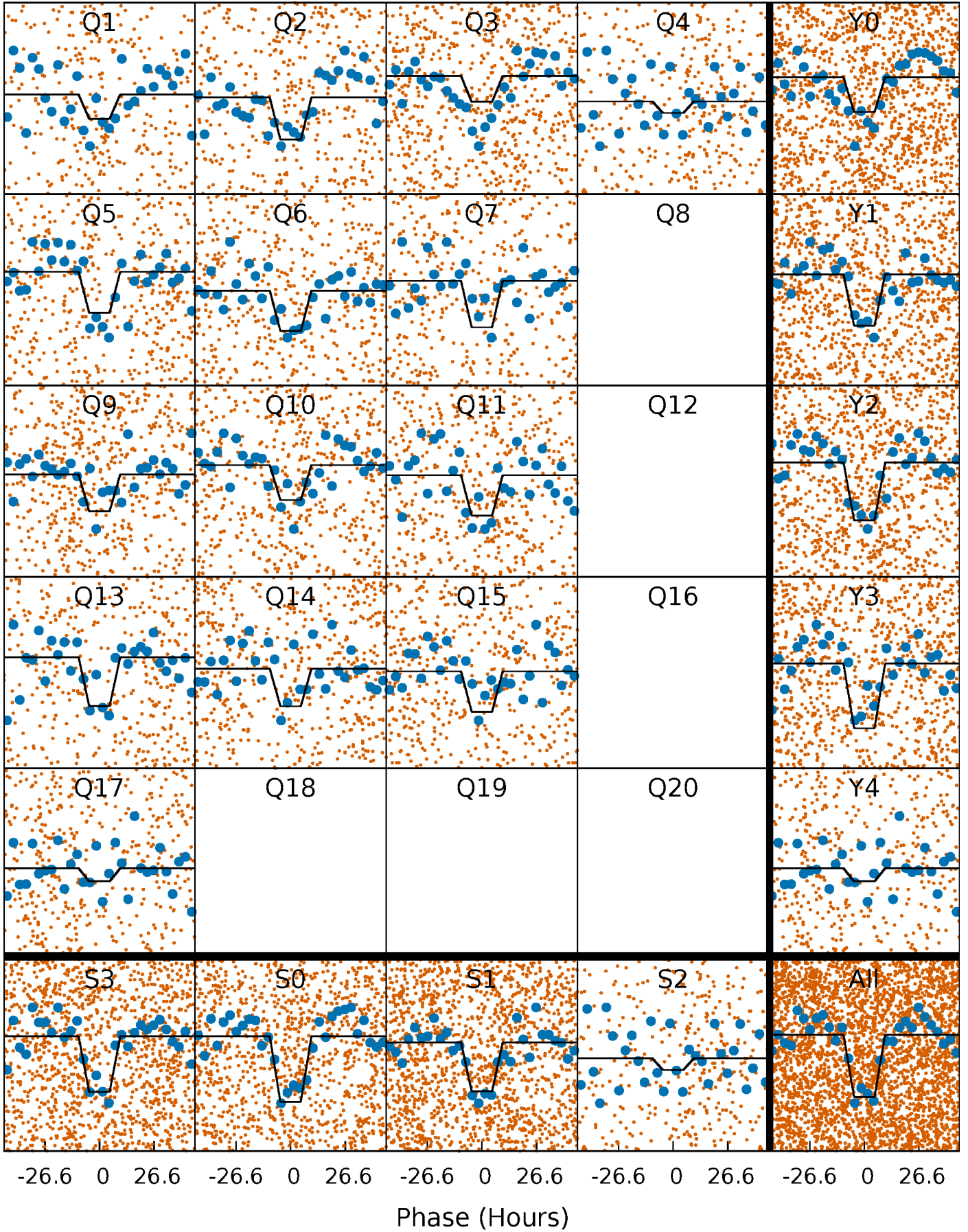
DV Quarter-Phased Transit Curves

TCE 011905761-01 P= 3.580189 Days $T_0=131.521211$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

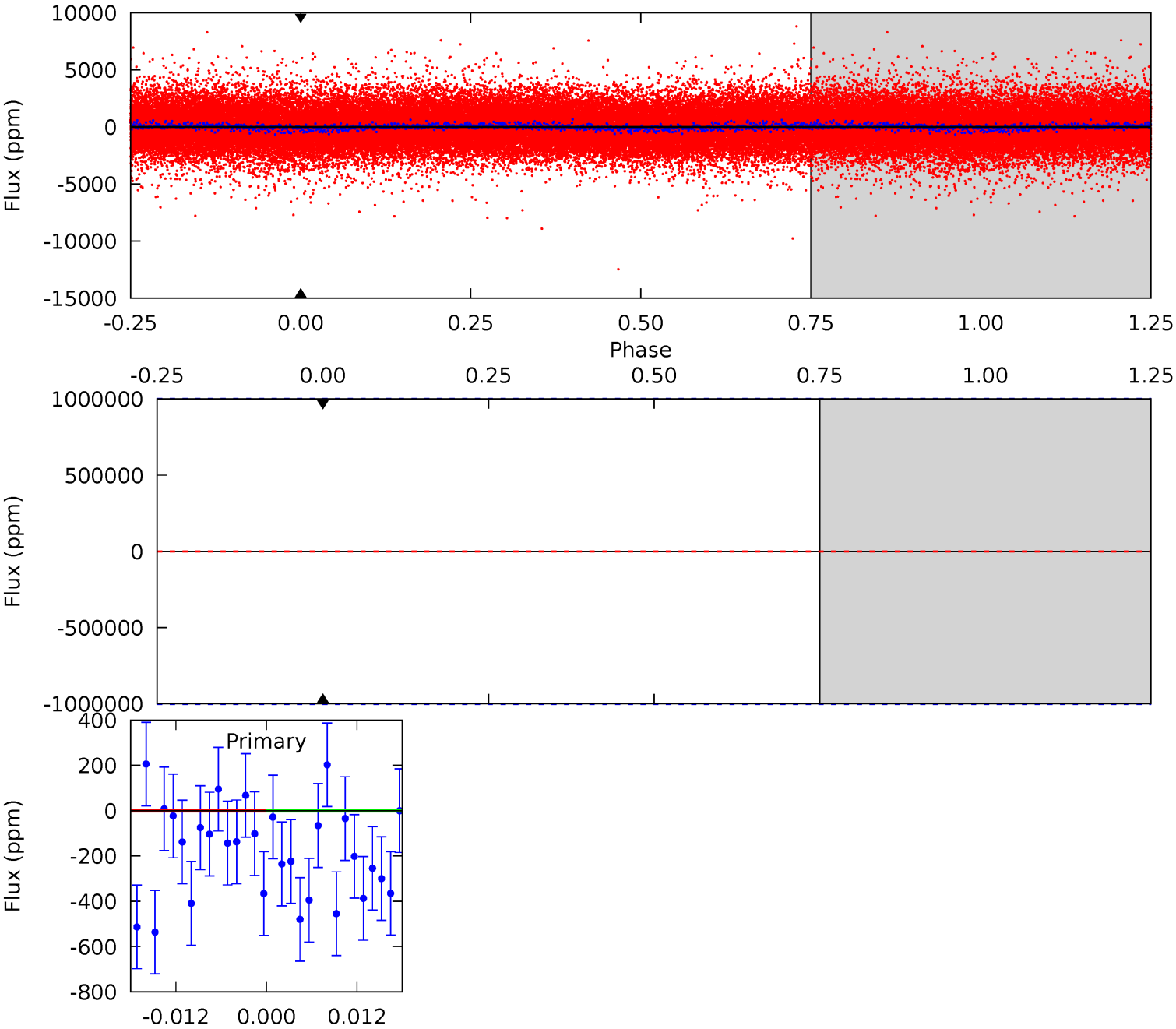
TCE 011905761-01 P= 3.580189 Days $T_0=131.523739$ (BKJD)



DV Model-Shift Uniqueness Test

011905761-01, P = 3.580189 Days, E = 127.941022 Days

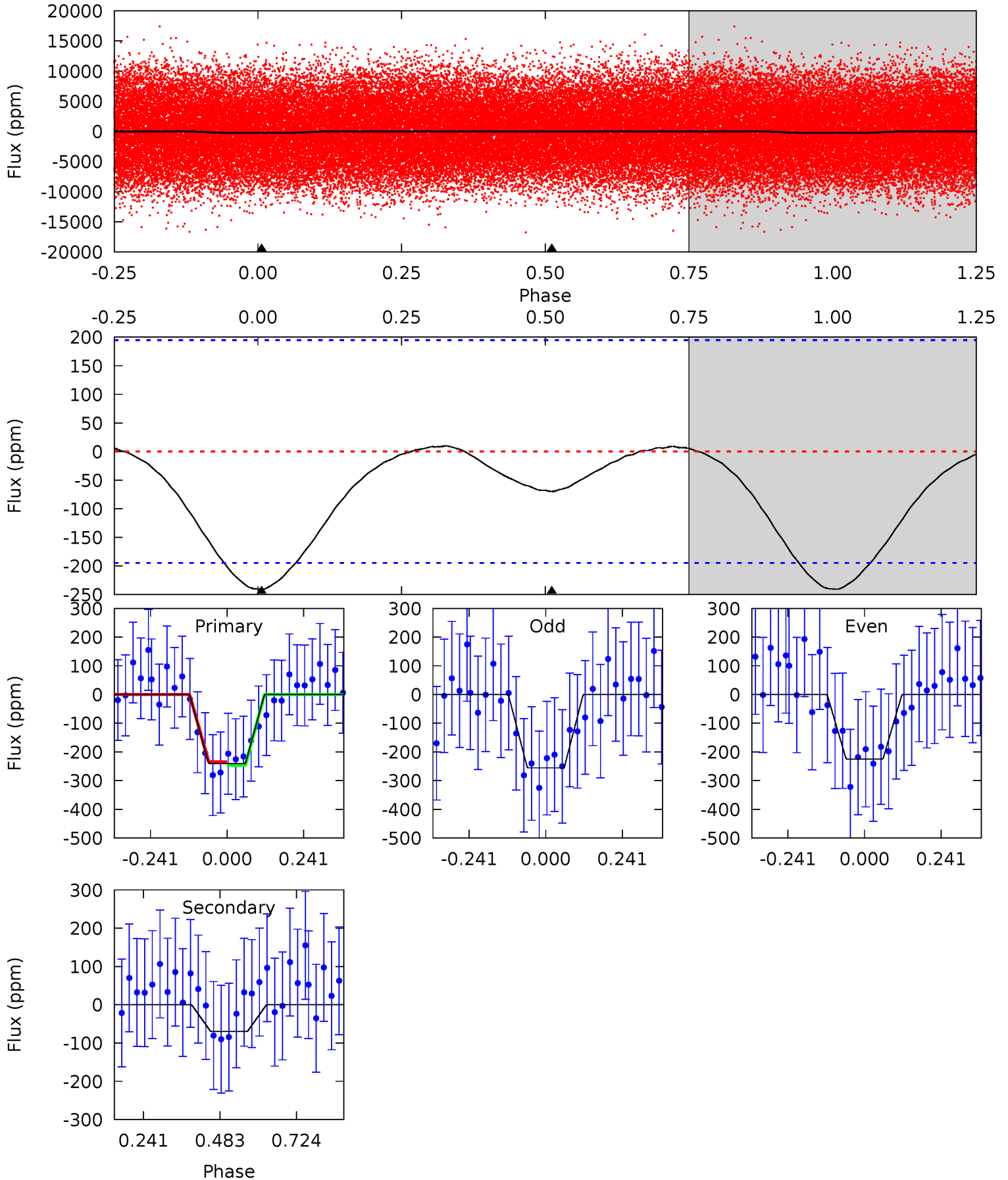
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

011905761-01, P = 3.580189 Days, E = 127.943550 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.41	1.57	0	0	4.38	1.17	0.12	5.41	5.41	1.57	1.57	0.34	1.13	0.04	0.14



Stellar Parameters For KIC 011905761

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6745^{+185}_{-278}	$3.926^{+0.293}_{-0.158}$	$0.240^{+0.200}_{-0.350}$	$2.346^{+0.594}_{-0.817}$	$1.695^{+0.197}_{-0.366}$	$0.185^{+0.382}_{-0.084}$
	+3%/-4%	+7%/-4%	+83%/-146%	+25%/-35%	+12%/-22%	+206%/-45%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011905761-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$17.78^{+19.24}_{-12.45}$	2702^{+211}_{-267}	5312^{+30146}_{-33006}	11^{+1214}_{-689}
Alt.	-70 ± 44	$17.78^{+20.58}_{-12.50}$	2684^{+223}_{-264}	-2071^{+6263}_{-781}	$0.280^{+3.217}_{-0.232}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

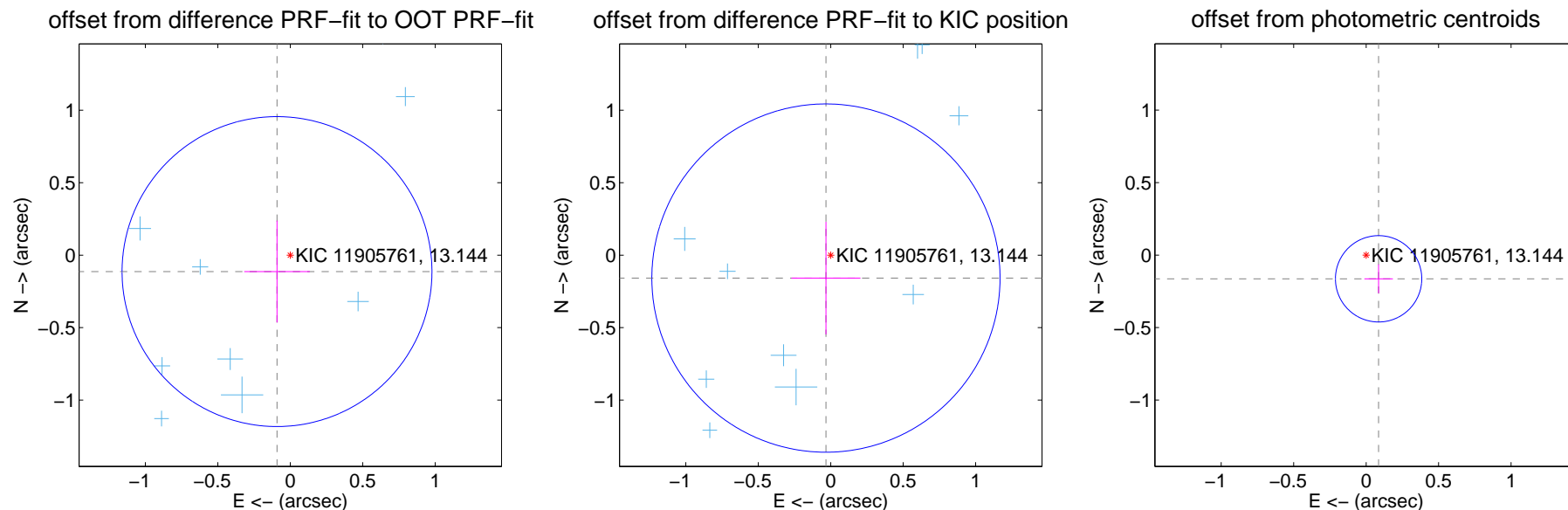
DV Centroid Data

Supplemental centroid analysis for 011905761-01. Kepler magnitude: 13.14. Transit SNR -1.00

There are 13 quarters with good PRF difference image offsets

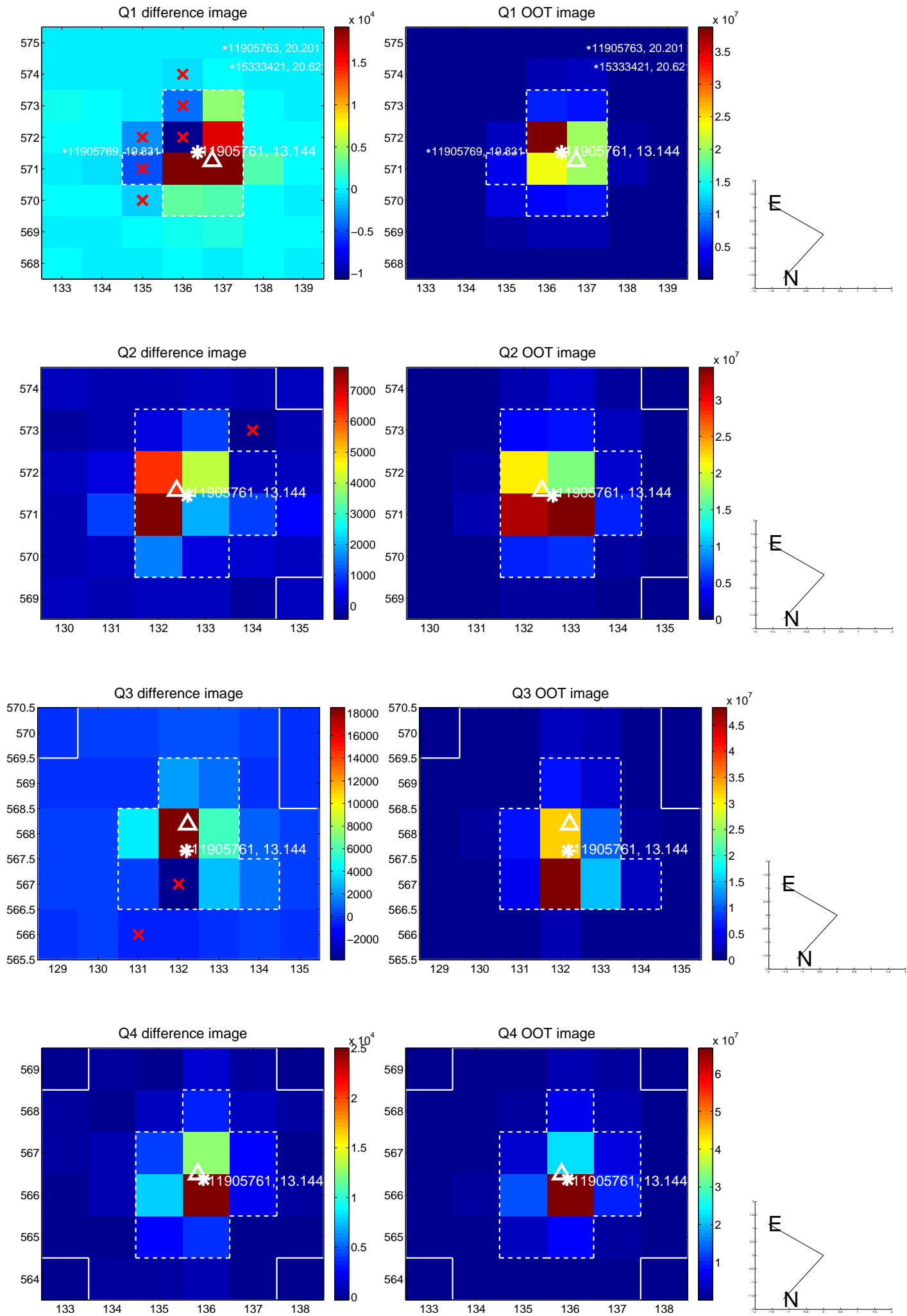
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.146 ± 0.356	0.41	0.091 ± 0.226	-0.113 ± 0.352
PRF-fit source offset from KIC position	0.162 ± 0.401	0.40	0.033 ± 0.238	-0.158 ± 0.388
photometric centroid source offset	0.18 ± 0.10	1.86	-0.09 ± 0.10	-0.16 ± 0.10

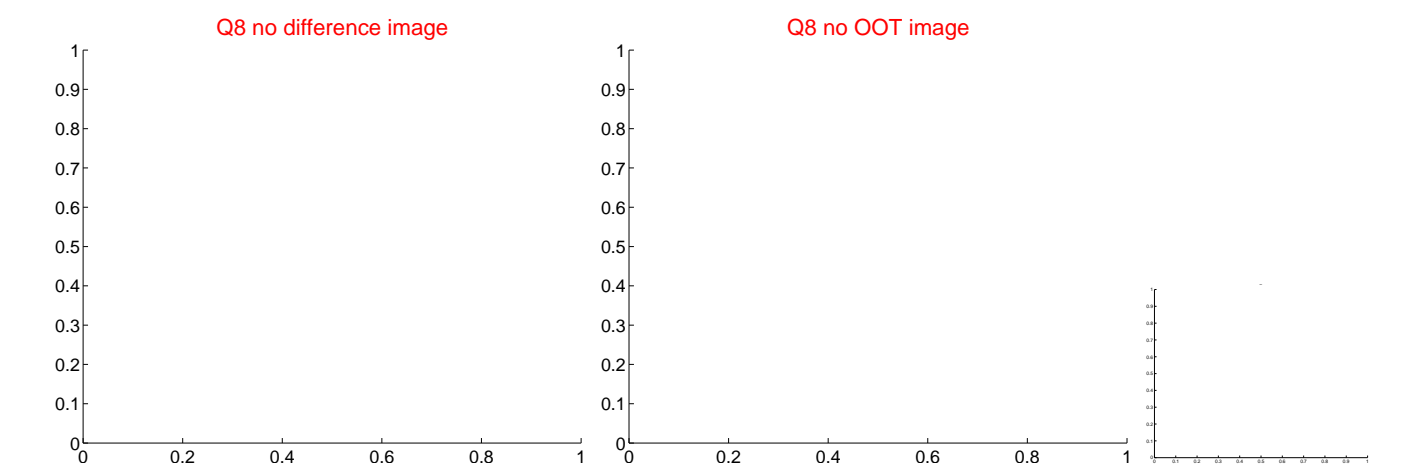
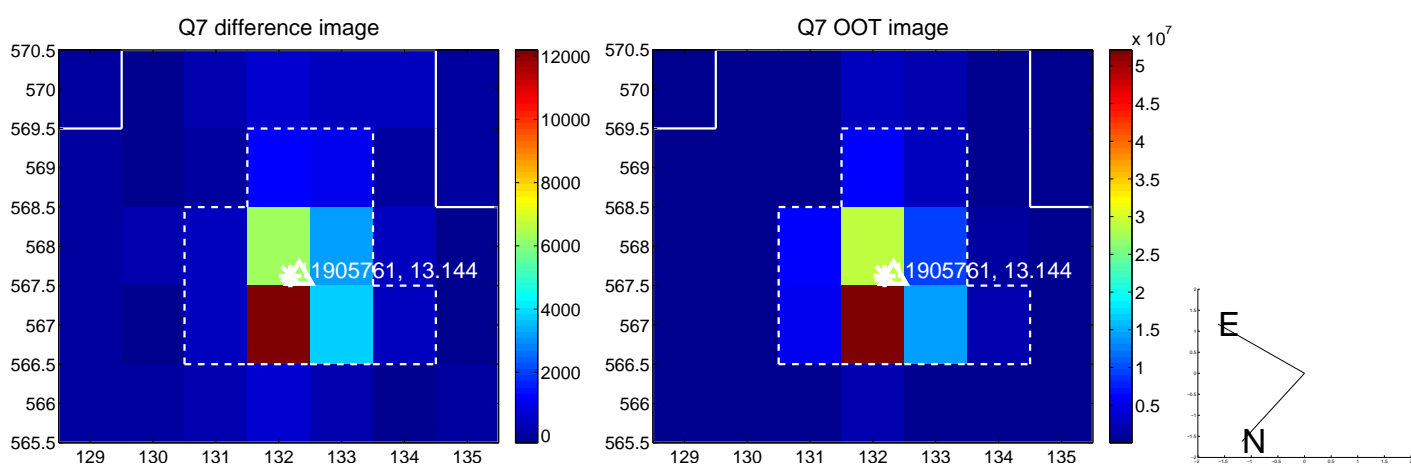
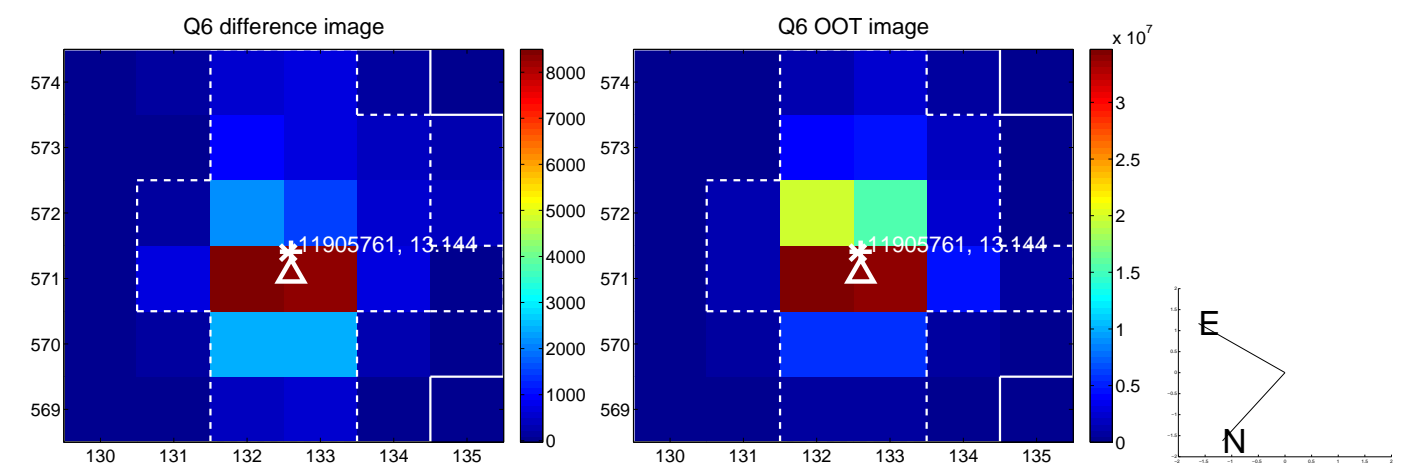
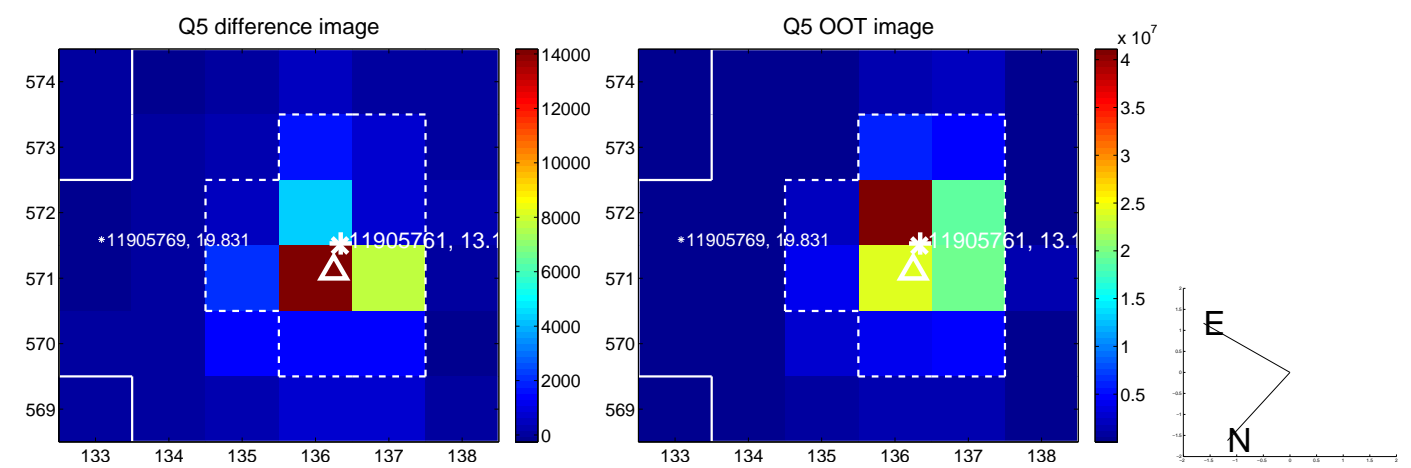


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

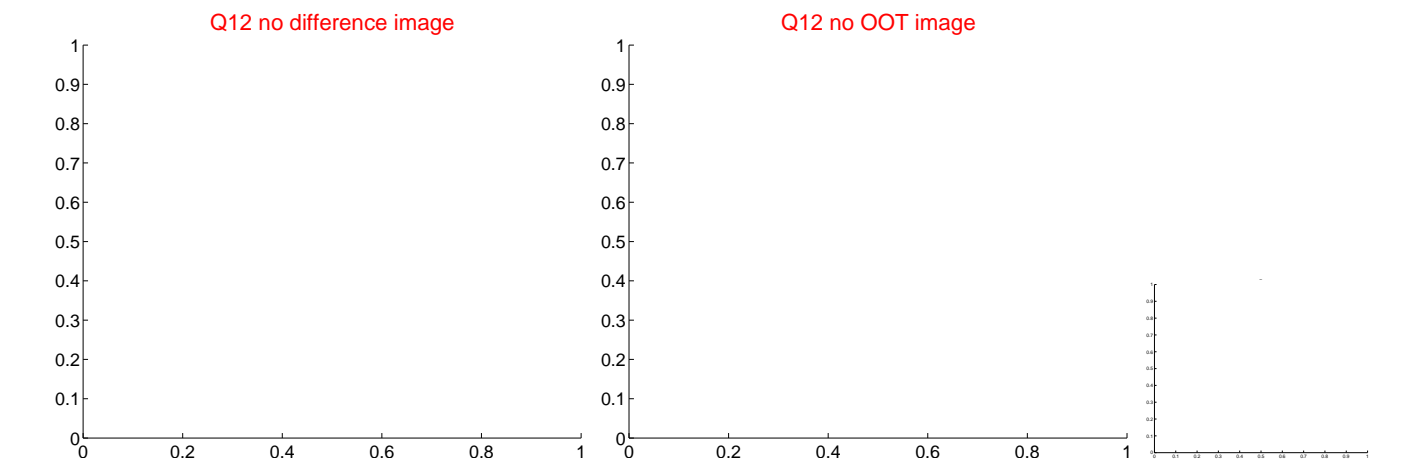
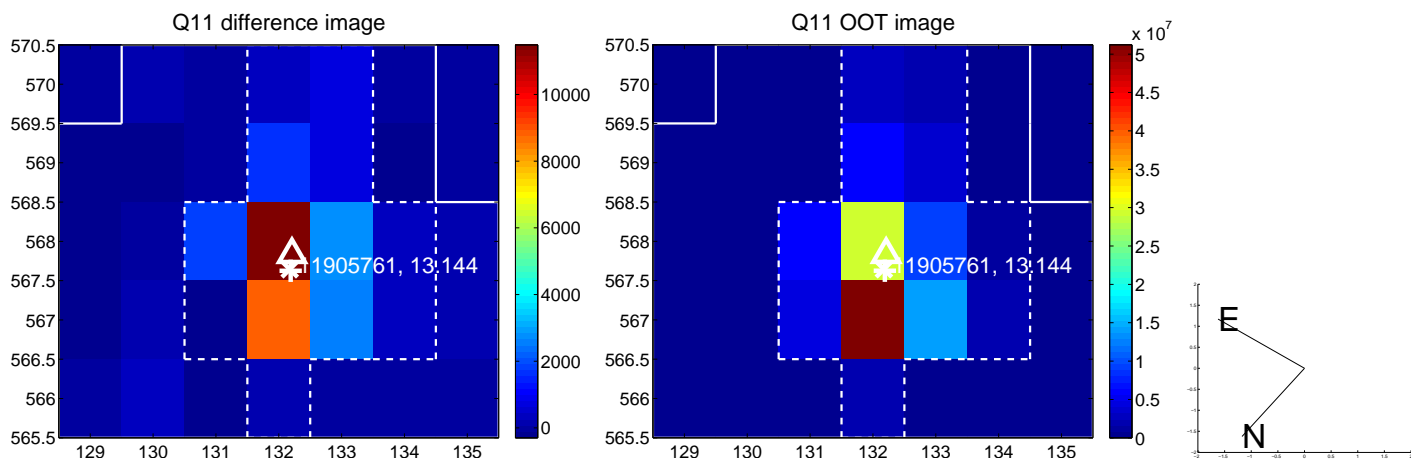
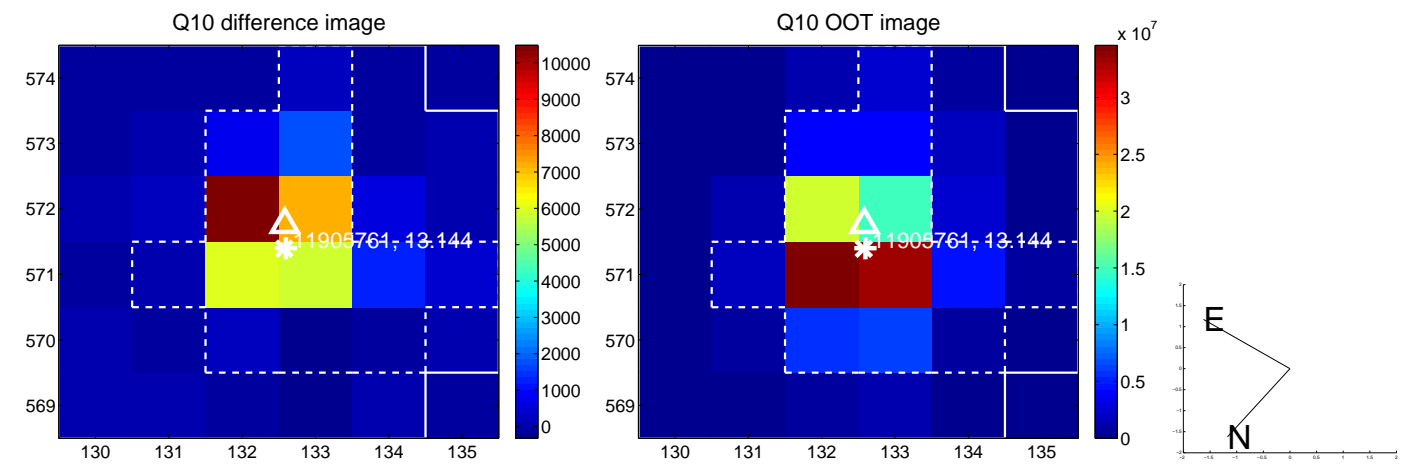
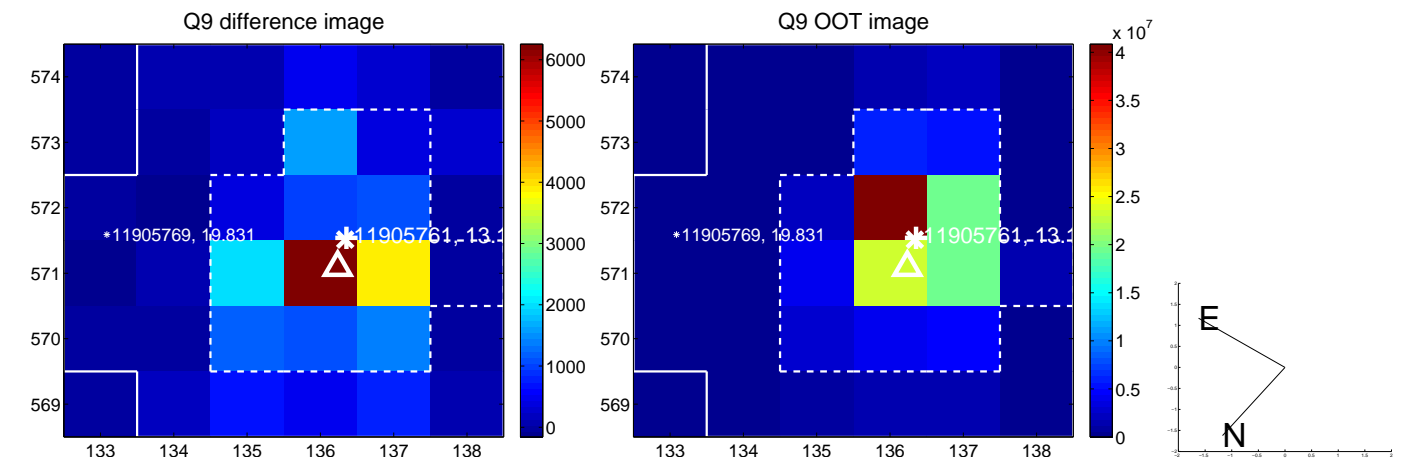
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



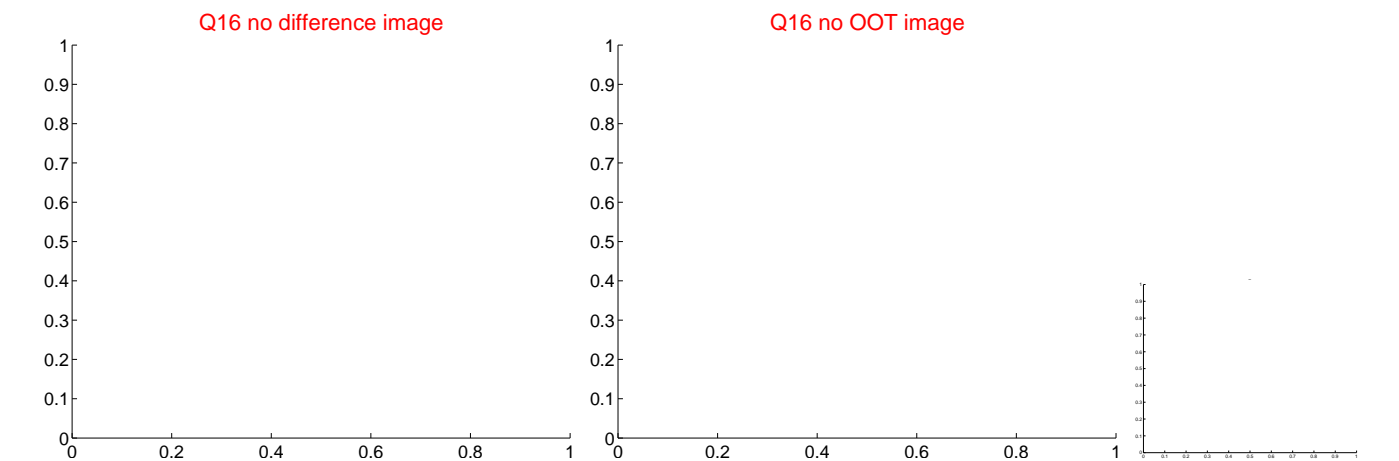
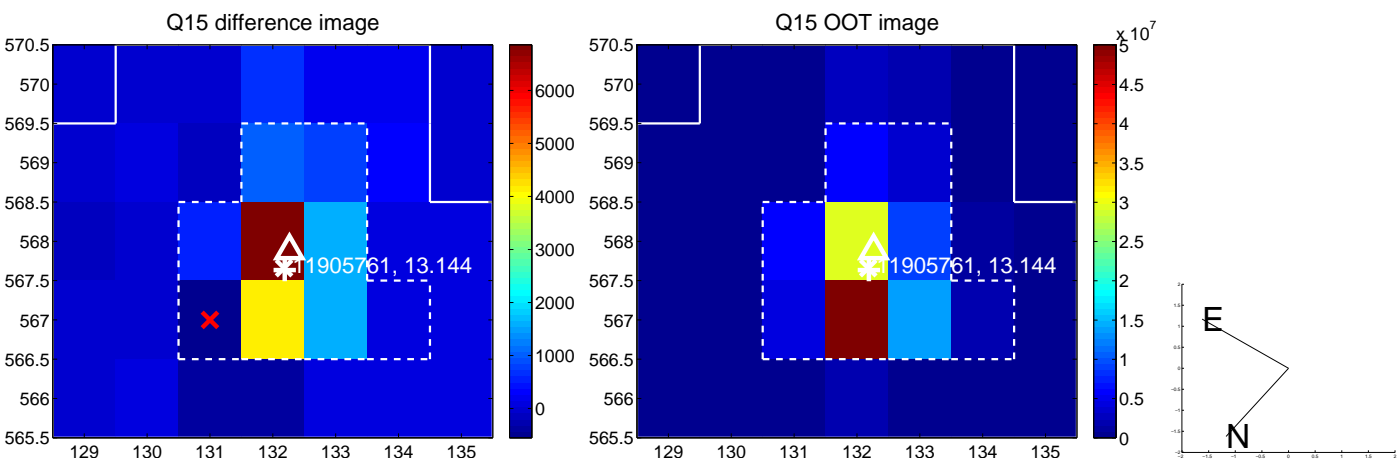
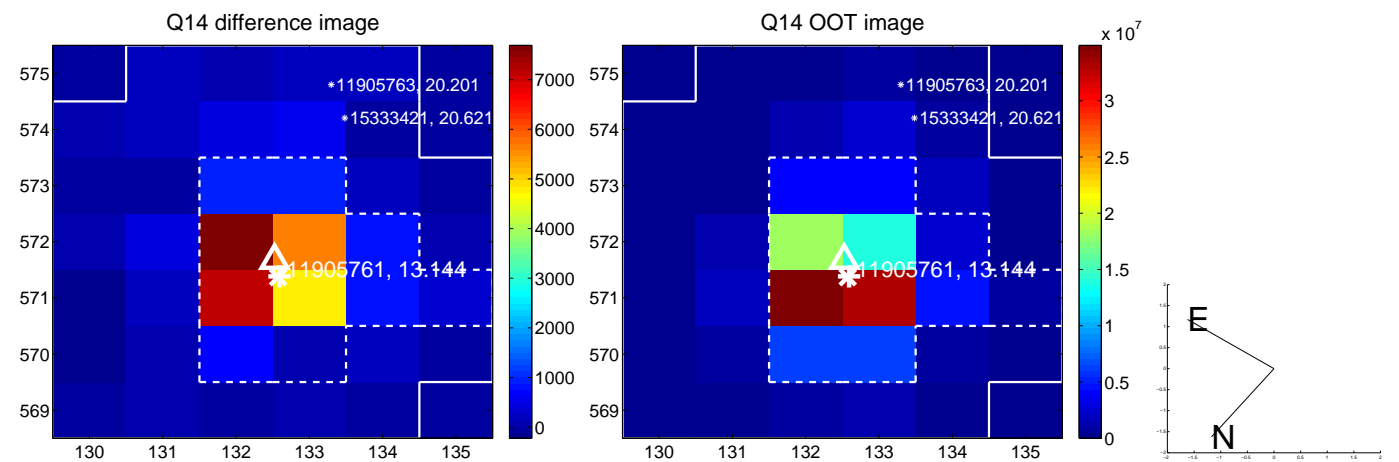
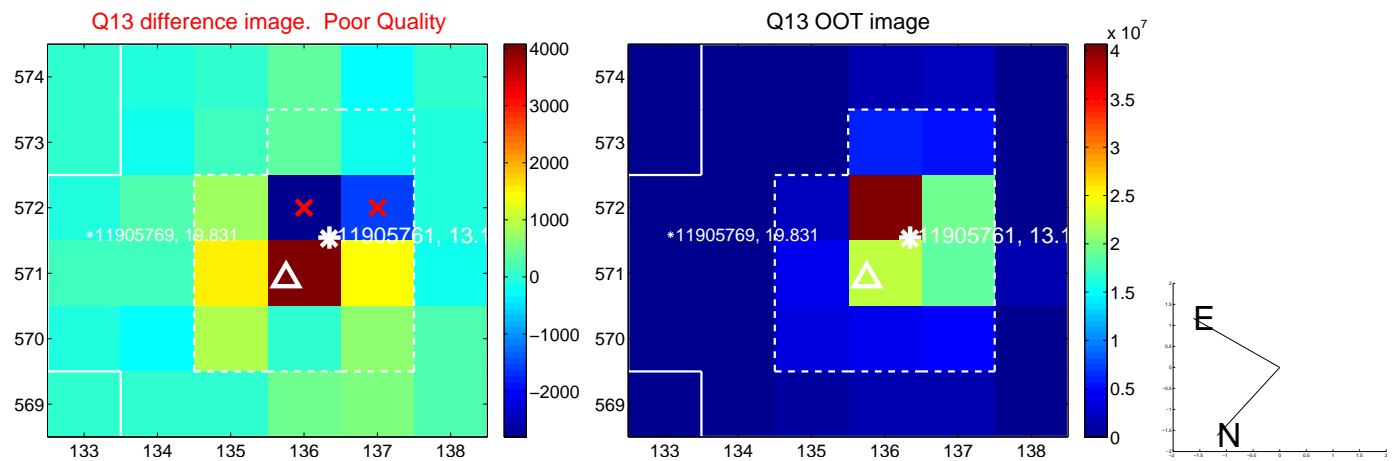
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



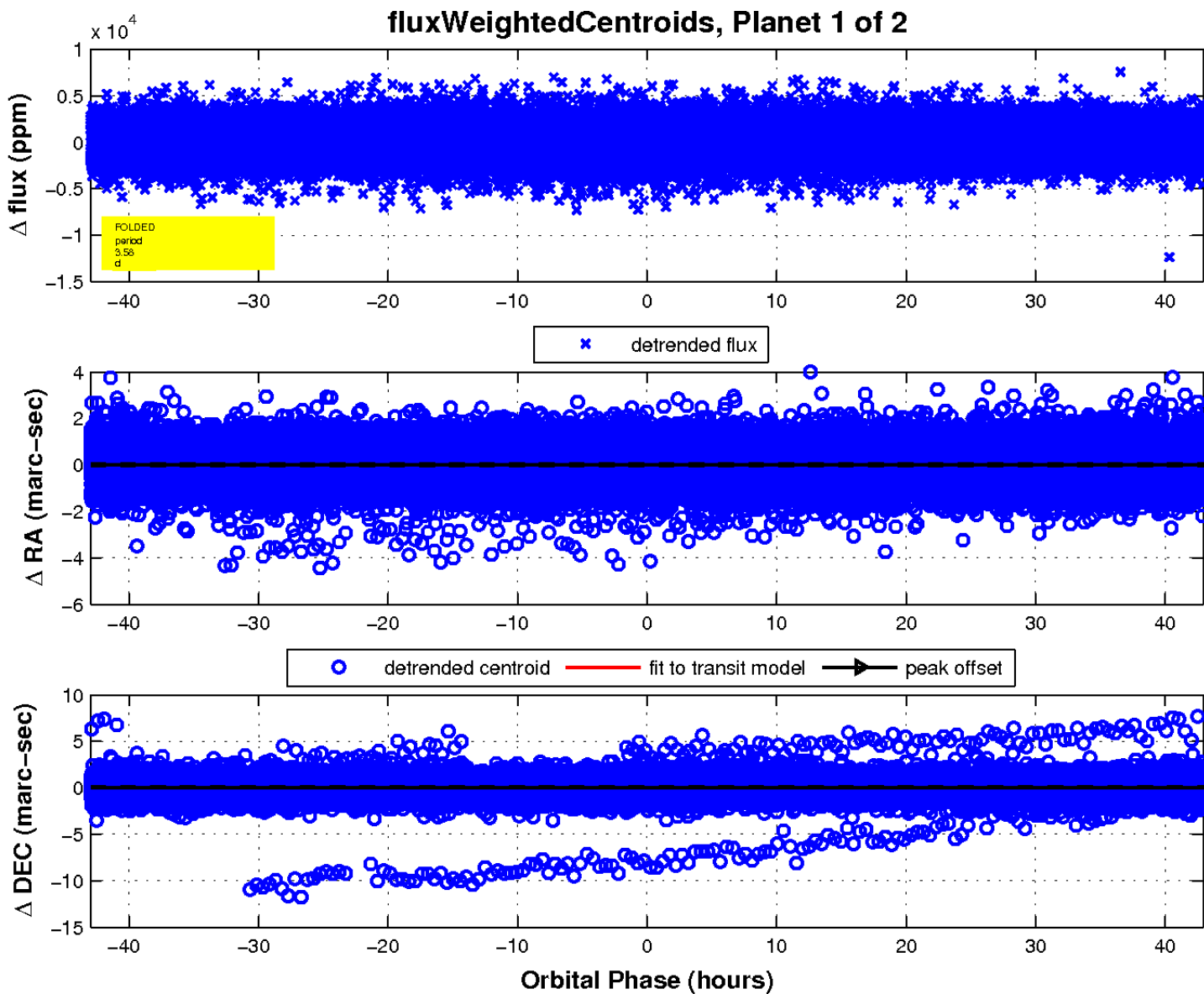
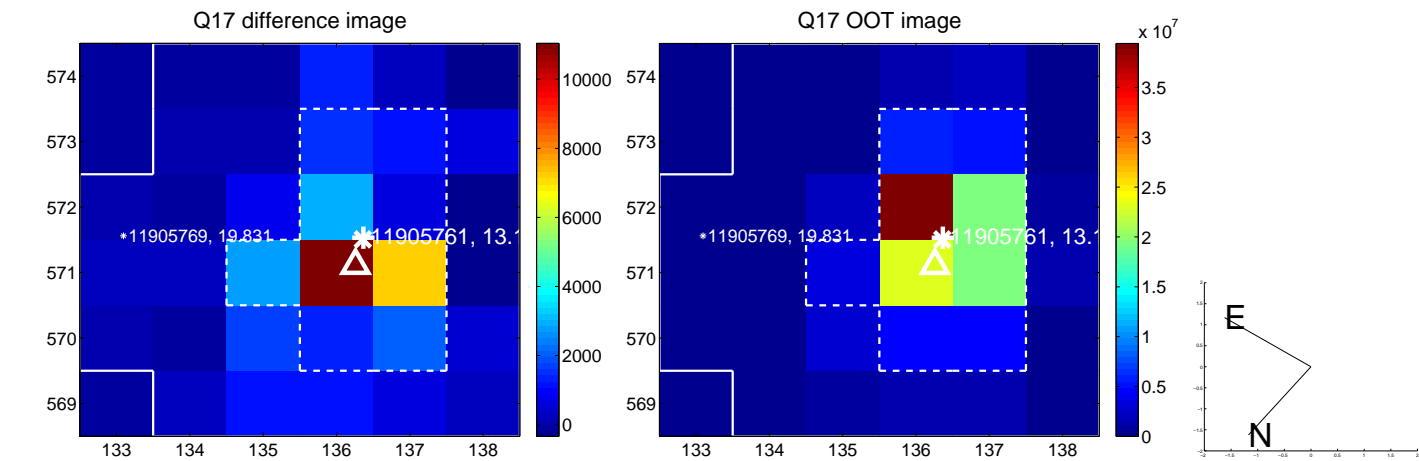
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

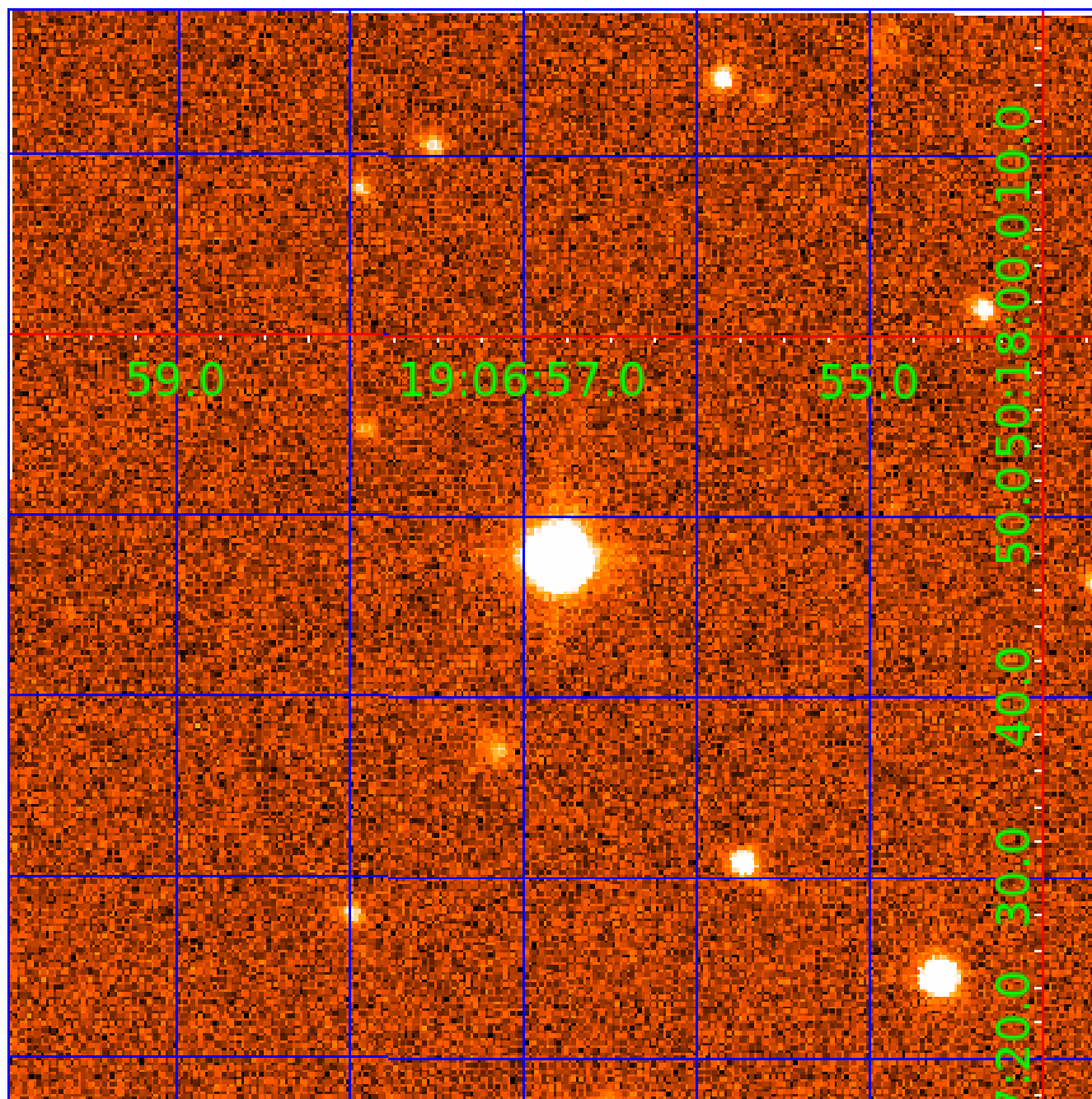


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011905761

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
011905761-01	OBS	No	3.580189	131.521211	105.3	12.000	9.7	-1.0	2.35	6745	2.42	3423.73
011905761-02	OBS	No	3.580738	133.221105	150.8	19.352	11.6	13.0	2.35	6745	2.90	3423.03

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011905761-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_NOFITS
011905761-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

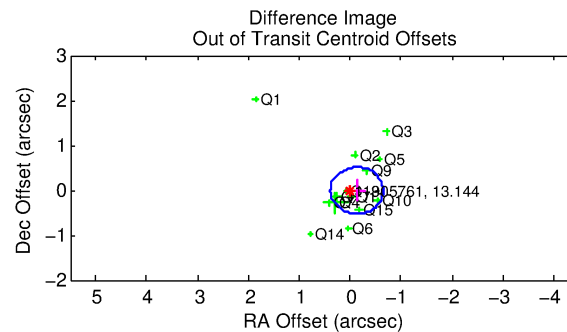
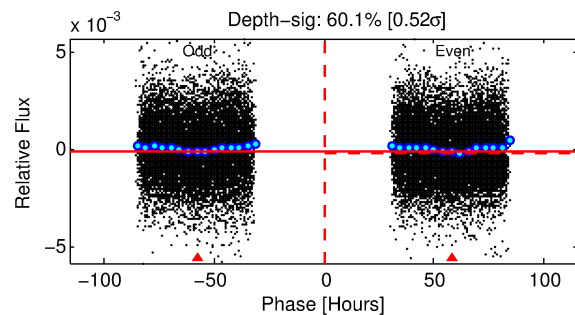
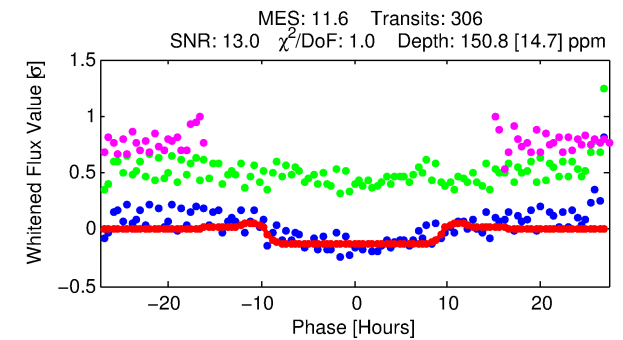
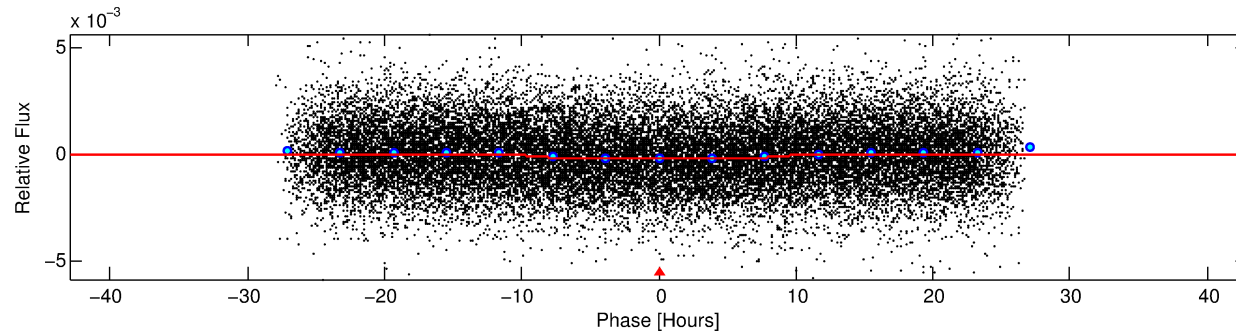
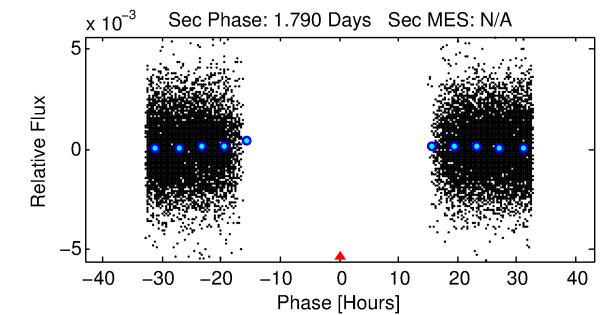
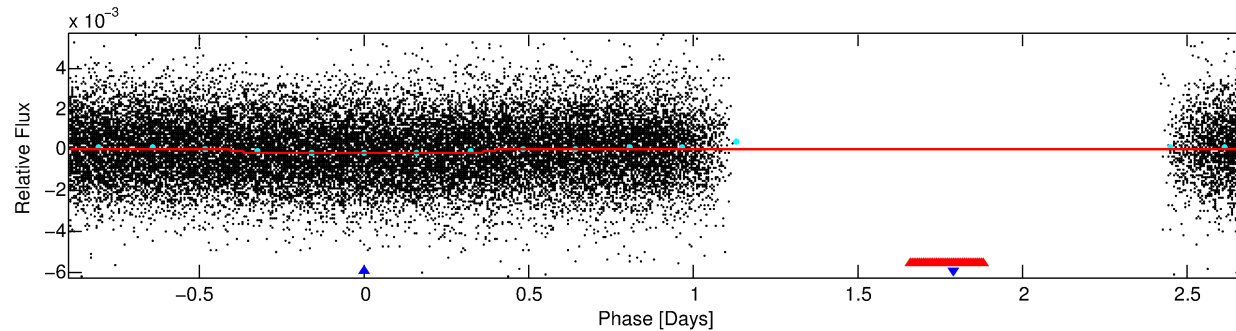
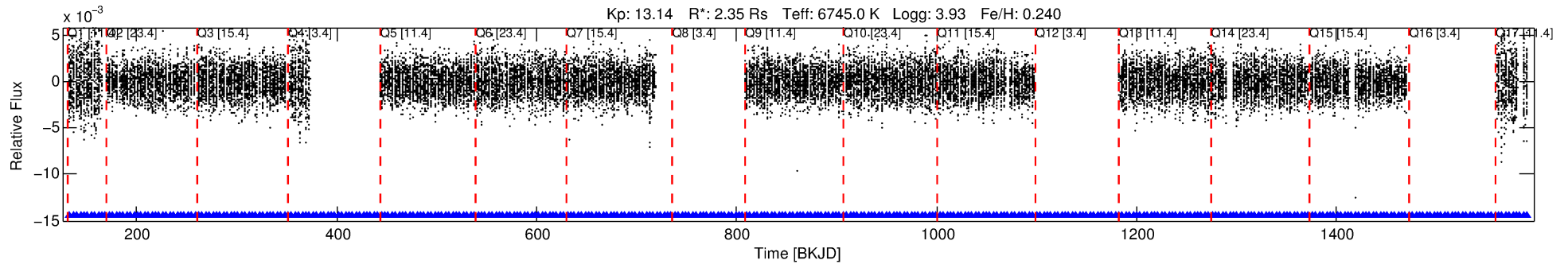
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011905761-02

No Significant Match Found

DV One-Page Summary

KIC: 11905761 Candidate: 2 of 2 Period: 3.581 d



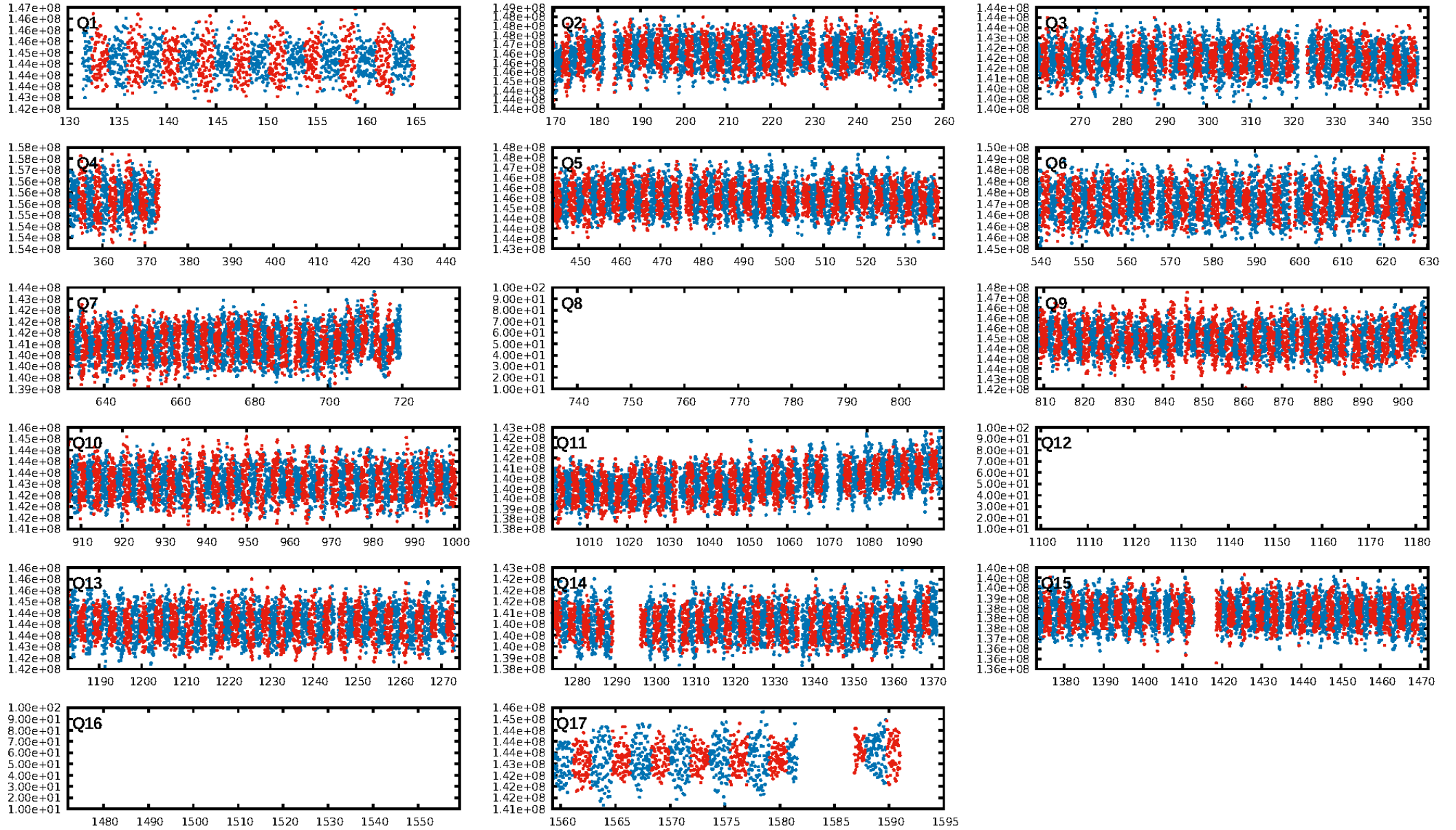
DV Fit Results:

Period = 3.58074 [0.00007] d
Epoch = 133.2211 [0.0147] BKJD
Rp/R* = 0.0113 [0.0094]
a/R* = 1.55 [4.05]
b = 0.14 [31.51]
Seff = 3423.03 [1822.19]
Teff = 1950 [260] K
Rp = 2.90 [2.60] Re
a = 0.0546 [0.0176] AU

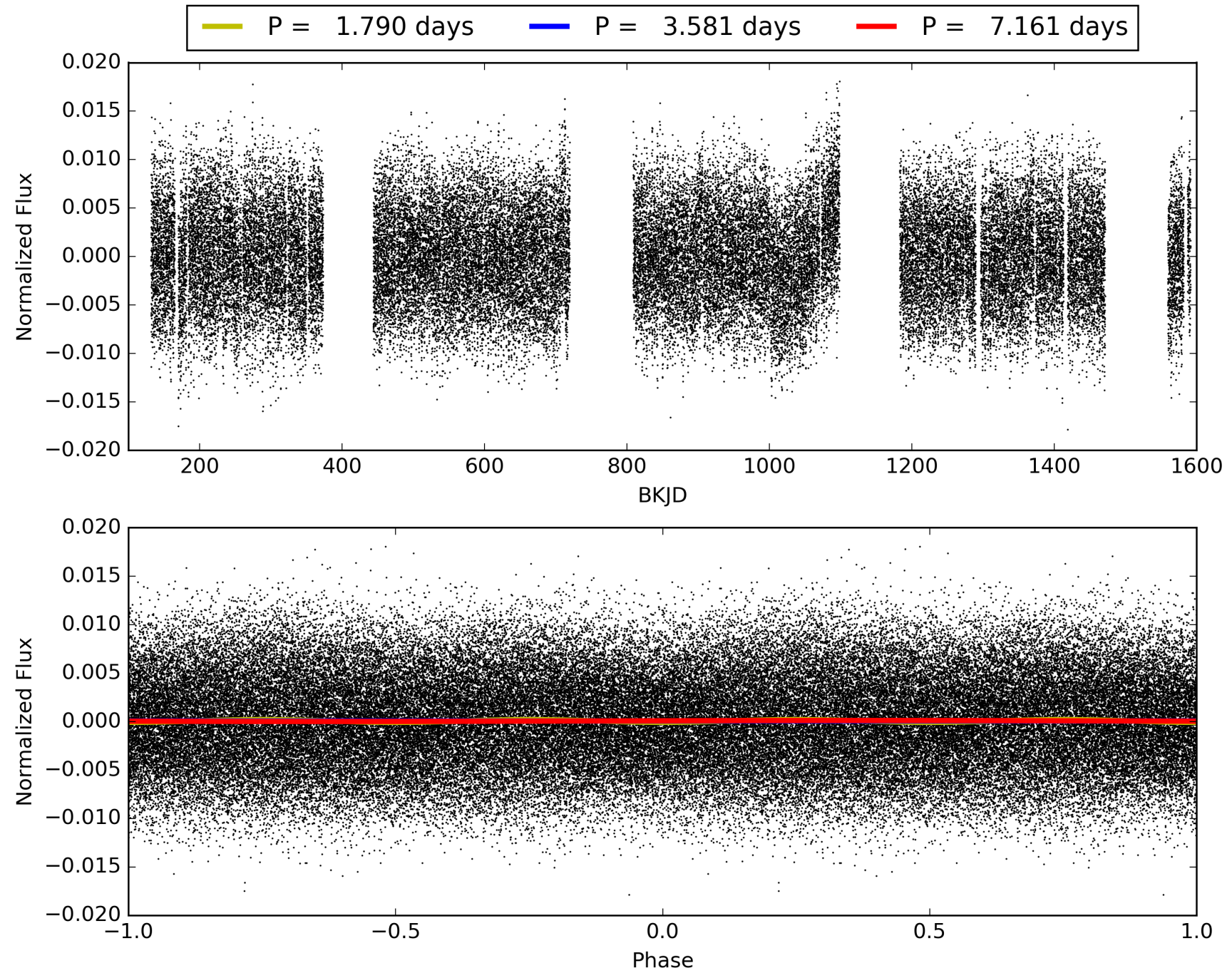
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [283/283]
GhostDiagnostic-chr: 2.076
Centroid-sig: 21.2%
Centroid-so: 0.085 arcsec [0.55σ]
OotOffset-rm: 0.128 arcsec [0.74σ]
KicOffset-rm: 0.171 arcsec [0.75σ]
OotOffset-st: 4/4/1/5 [14]
KicOffset-st: 4/4/1/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 0.00 [0/14]

TCE 011905761-02, PDC Light Curves

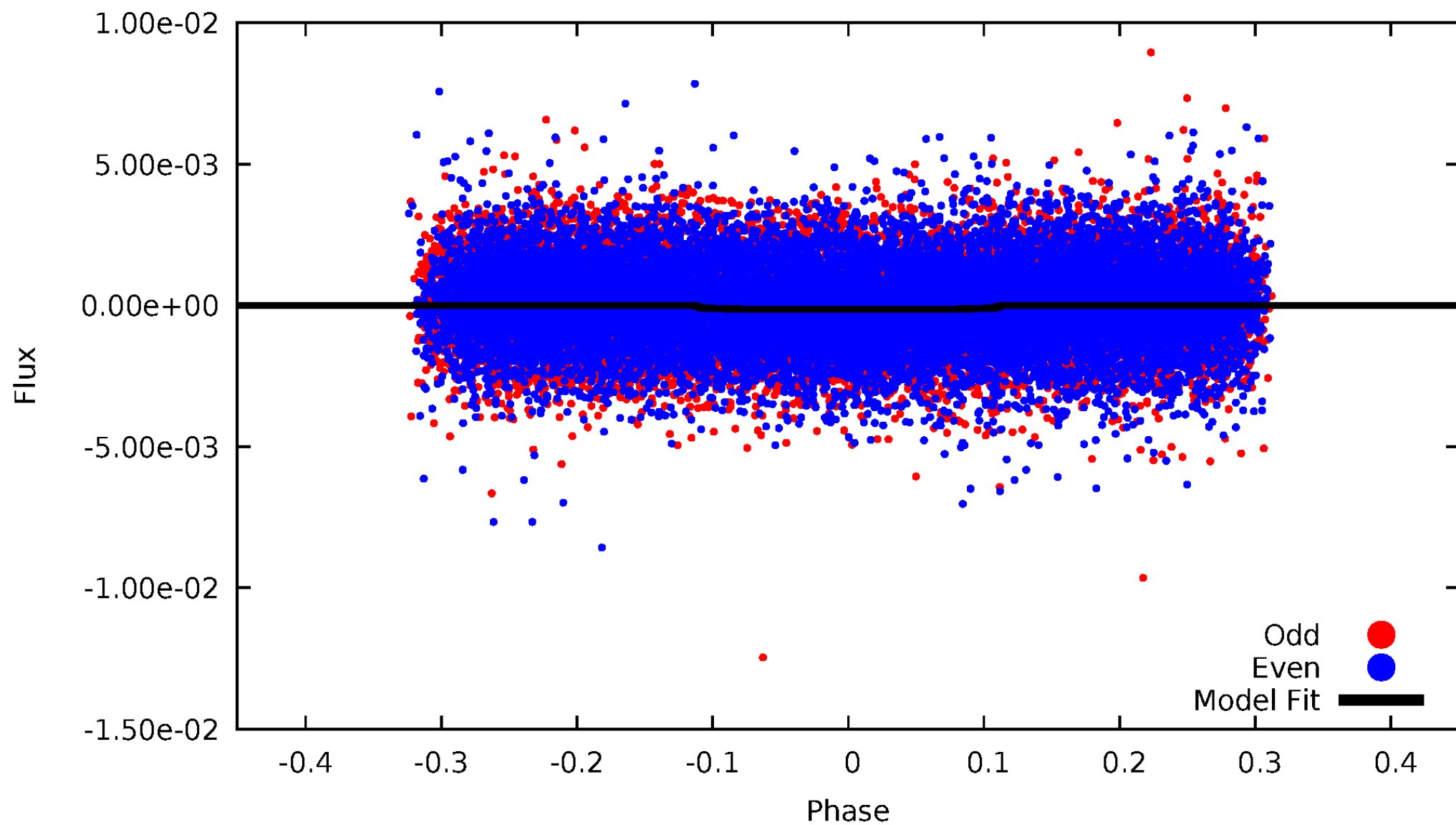


TCE 011905761-02



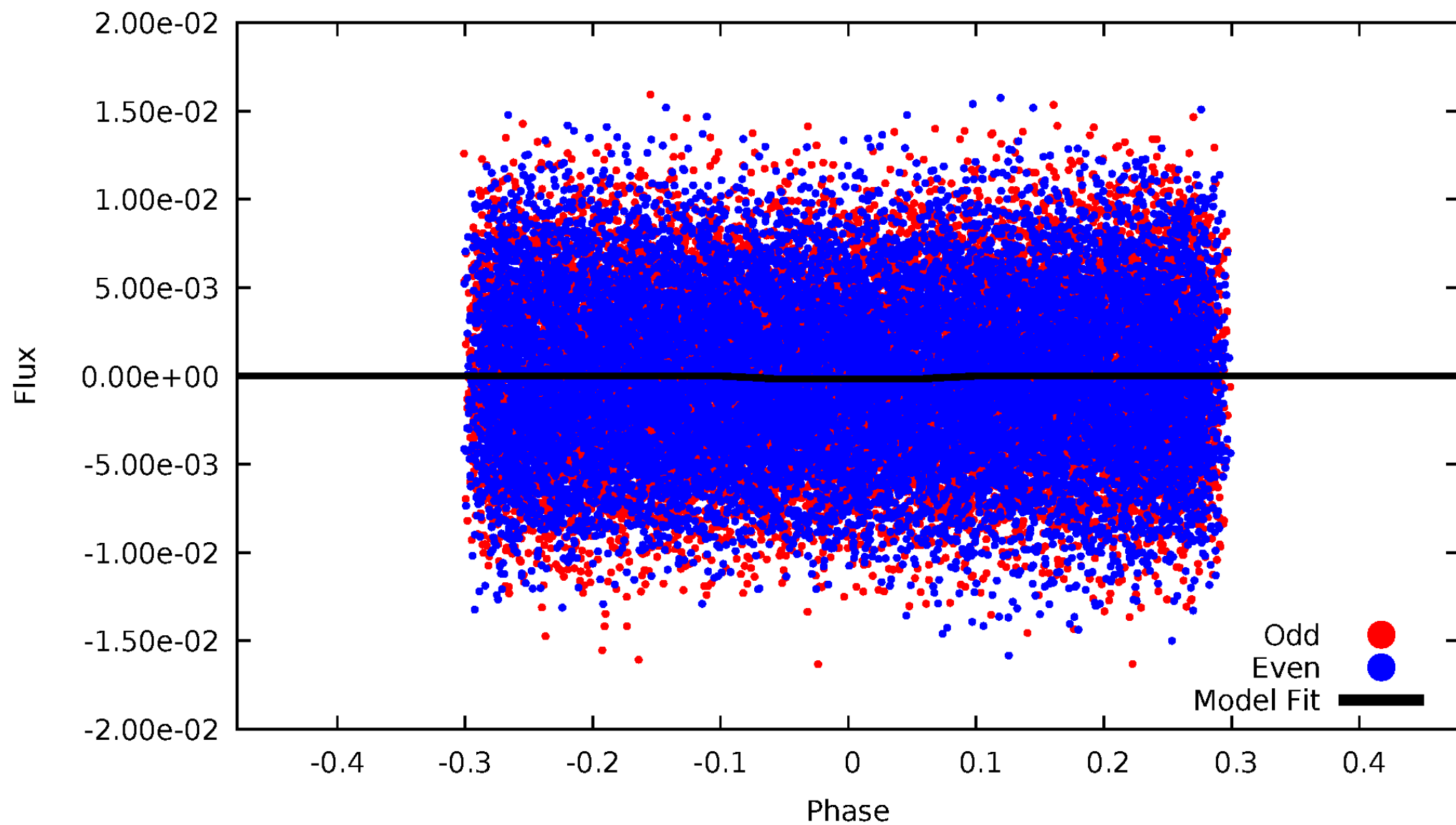
DV Odd/Even

TCE 011905761-02



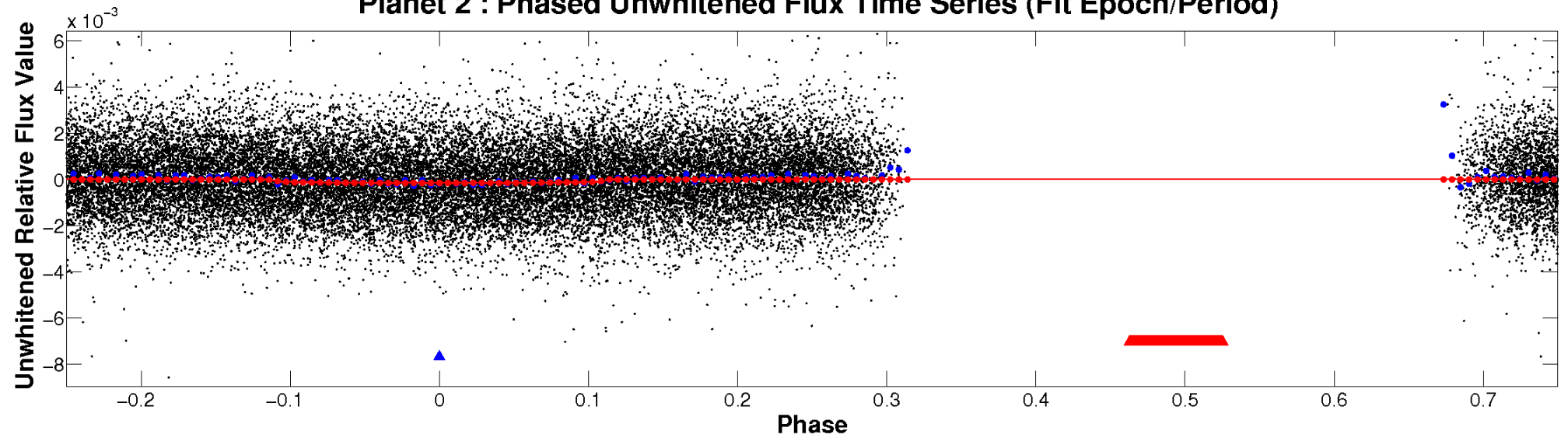
ALT Odd/Even

TCE 011905761-02

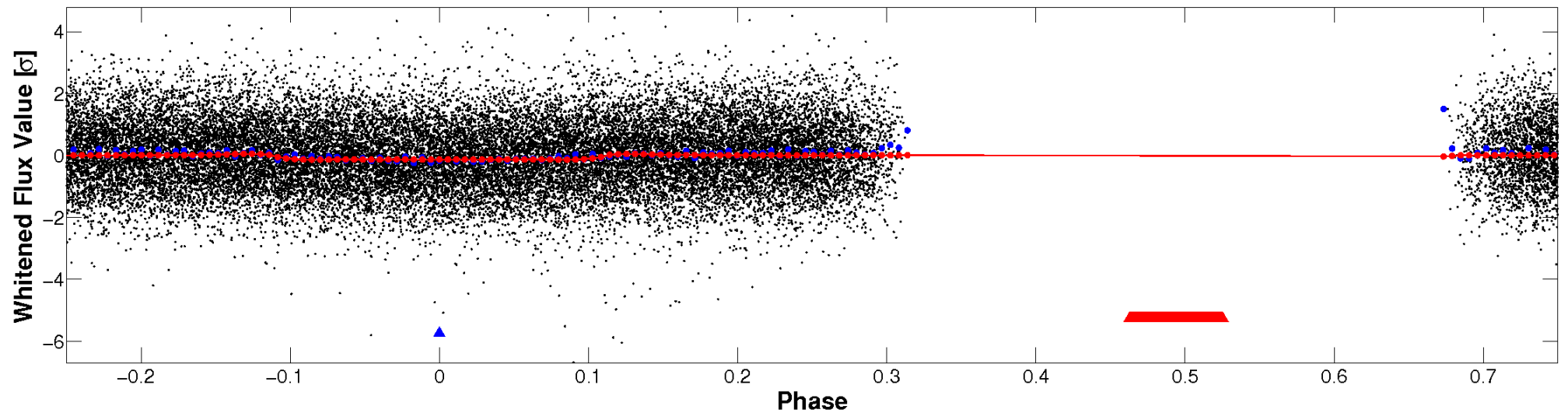


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

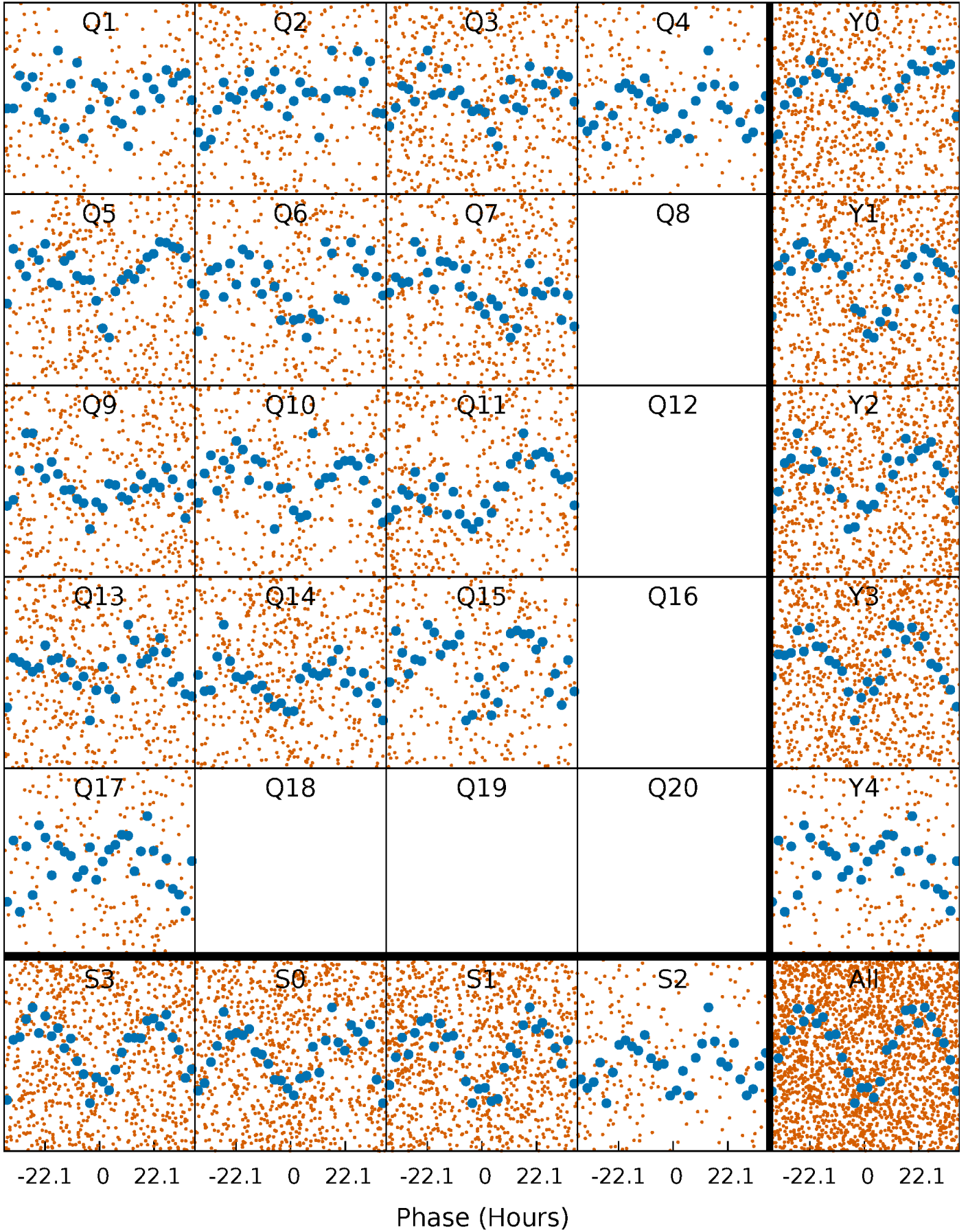


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



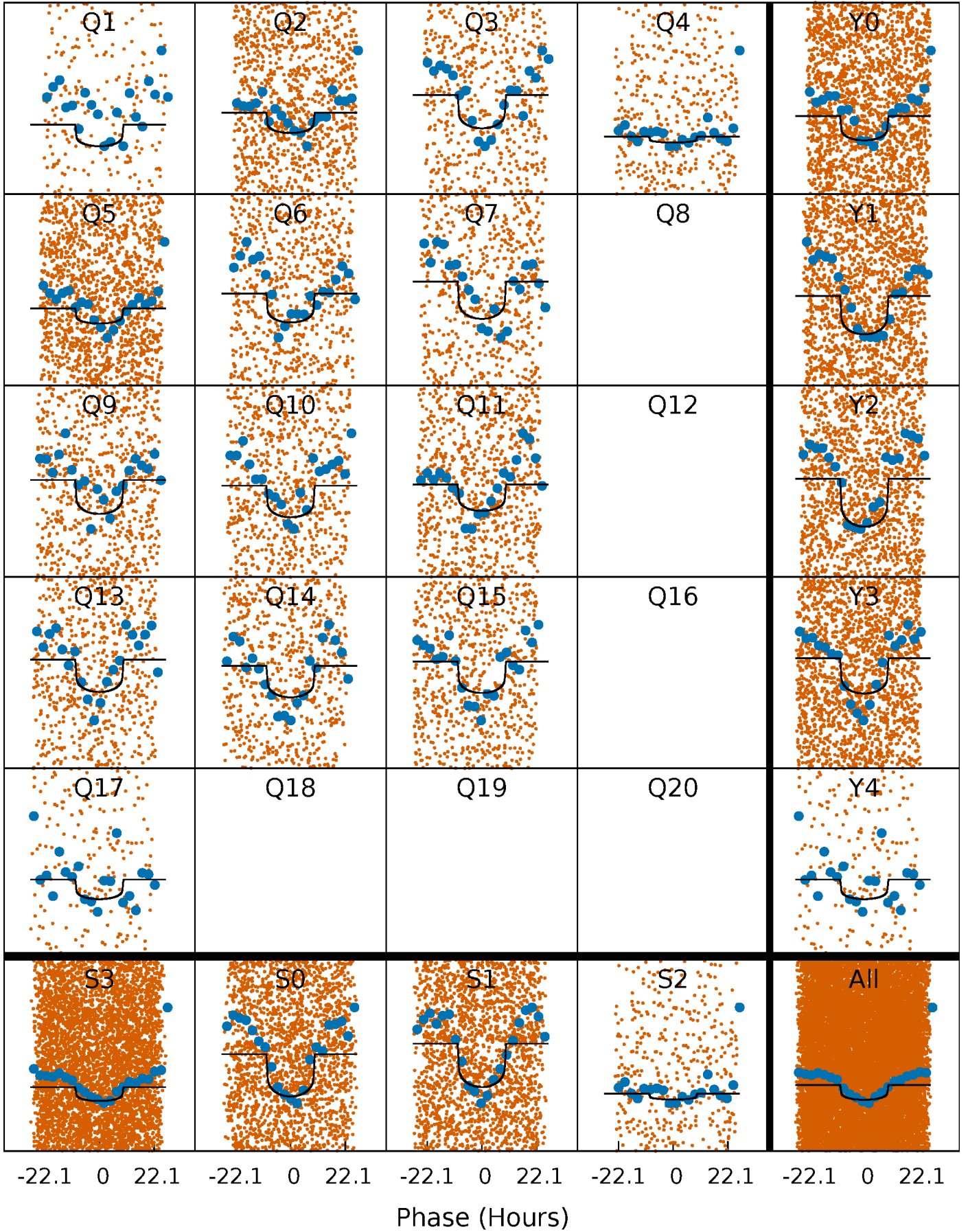
PDC Quarter-Phased Transit Curves

TCE 011905761-02 P= 3.580738 Days $T_0=133.221105$ (BKJD)



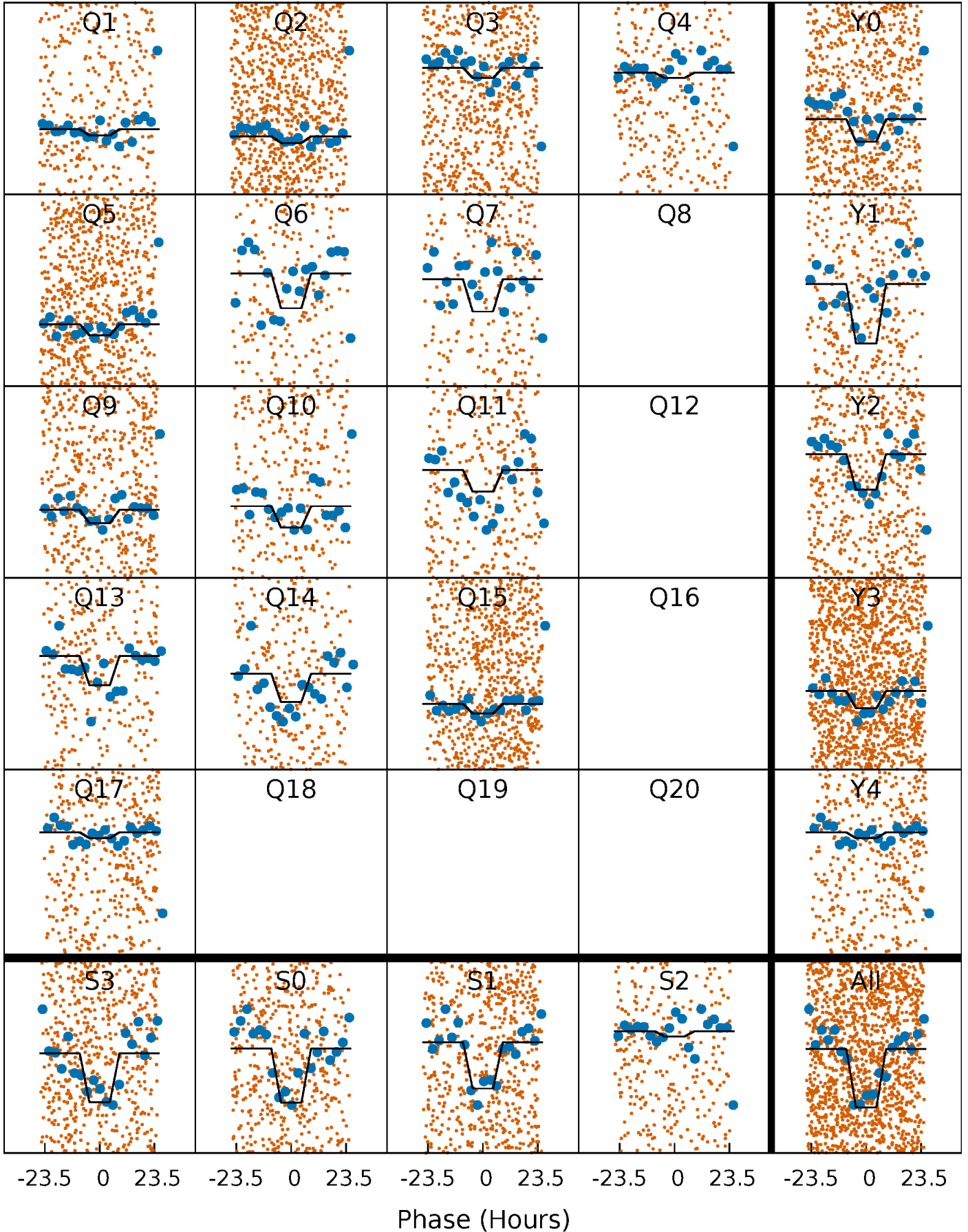
DV Quarter-Phased Transit Curves

TCE 011905761-02 $P = 3.580738$ Days $T_0 = 133.221105$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

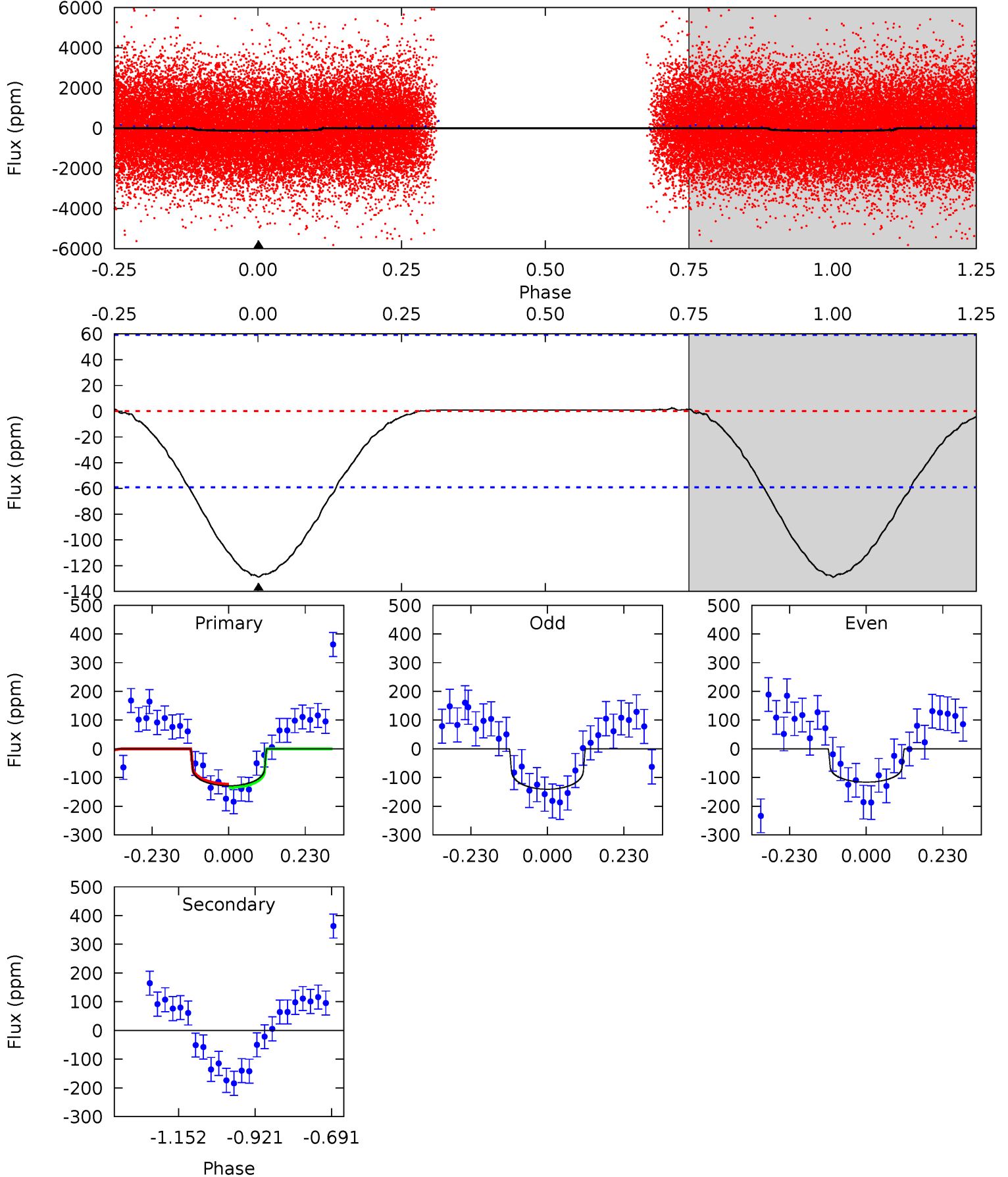
TCE 011905761-02 P= 3.579957 Days $T_0=133.361589$ (BKJD)



DV Model-Shift Uniqueness Test

011905761-02, P = 3.580738 Days, E = 129.640367 Days

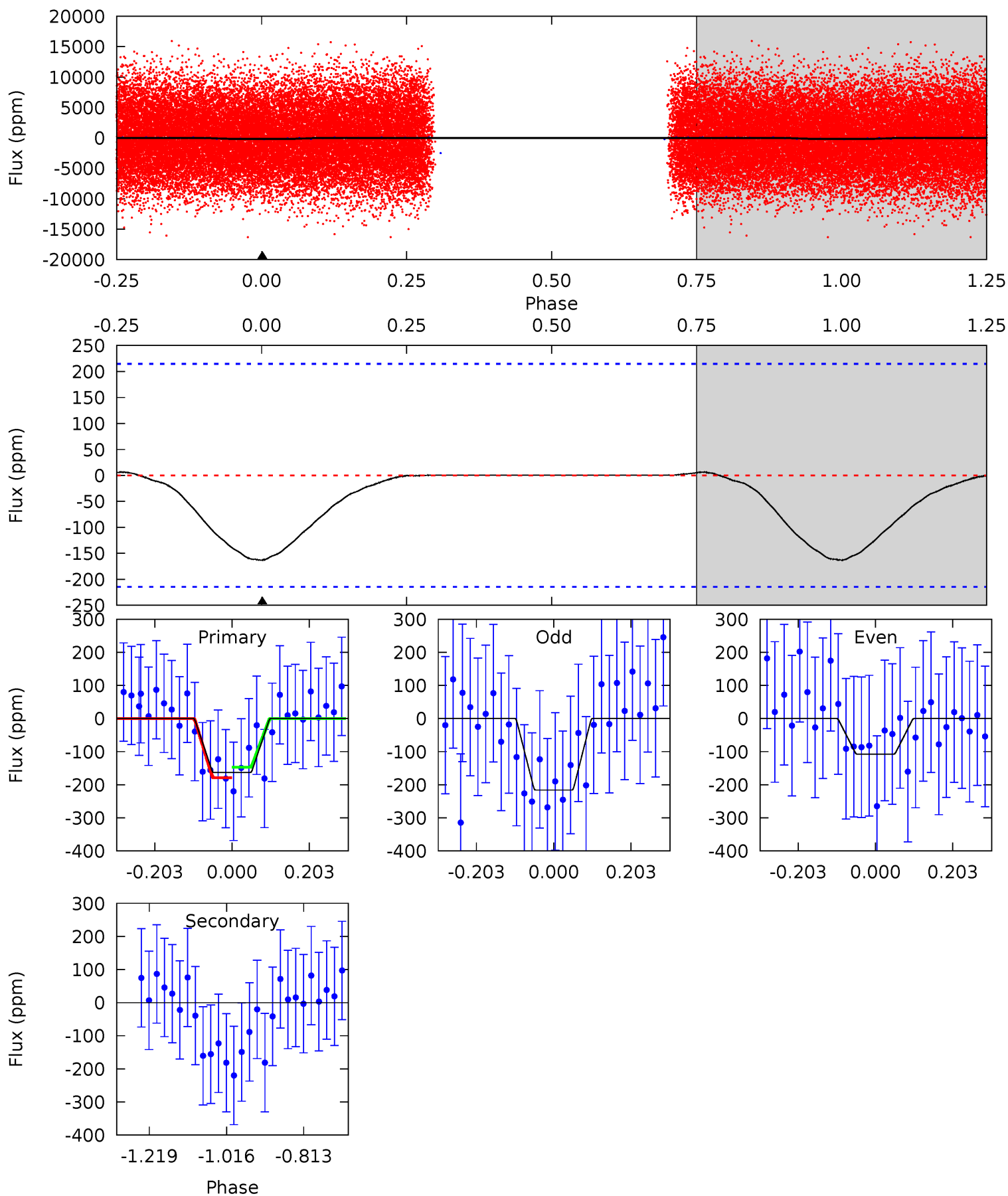
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.56	0	0	0	4.39	1.20	0.21	9.56	9.56	0	0	0.92	0.89	0.02	0.42



Alt Model-Shift Uniqueness Test

011905761-02, P = 3.579957 Days, E = 129.781632 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.35	0	0	0	4.41	1.27	0.09	3.35	3.35	0	0	1.12	0.57	0.04	0.34



Stellar Parameters For KIC 011905761

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6745^{+185}_{-278}	$3.926^{+0.293}_{-0.158}$	$0.240^{+0.200}_{-0.350}$	$2.346^{+0.594}_{-0.817}$	$1.695^{+0.197}_{-0.366}$	$0.185^{+0.382}_{-0.084}$
	+3%/-4%	+7%/-4%	+83%/-146%	+25%/-35%	+12%/-22%	+206%/-45%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011905761-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 13	$2.98^{+2.44}_{-1.75}$	2681^{+197}_{-253}	-2997^{+7218}_{-1319}	$-0.096^{+3.960}_{-3.430}$
Alt.	0 ± 49	$3.43^{+2.38}_{-1.84}$	2684^{+223}_{-252}	-3241^{+8189}_{-2076}	$-0.410^{+8.009}_{-10.416}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

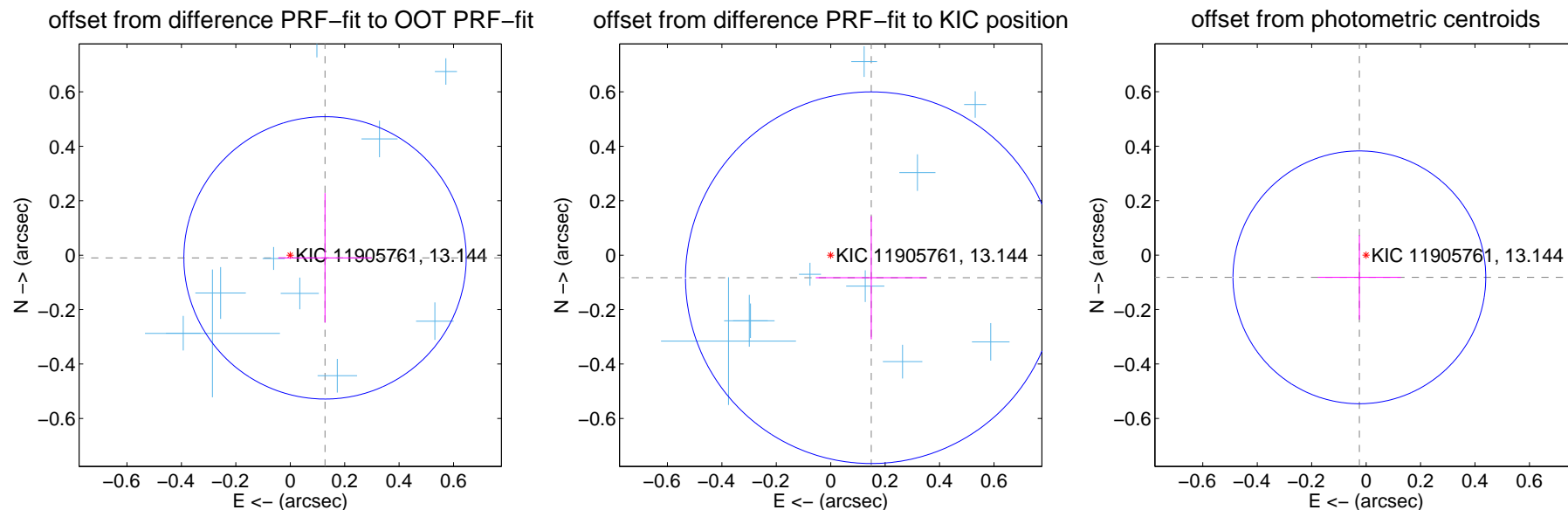
DV Centroid Data

Supplemental centroid analysis for 011905761-02. Kepler magnitude: 13.14. Transit SNR 13.03

There are 14 quarters with good PRF difference image offsets

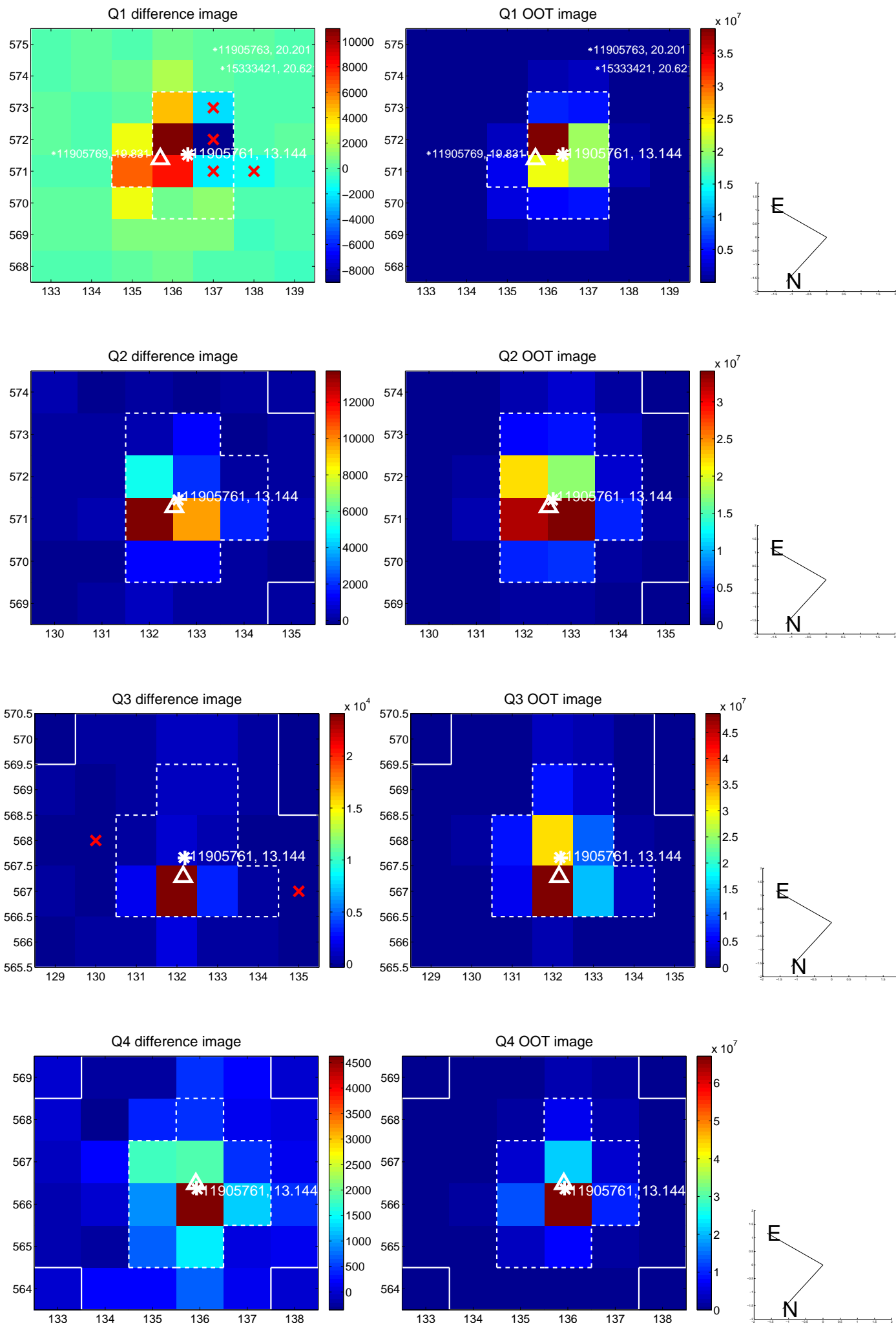
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.128 ± 0.173	0.74	-0.128 ± 0.171	-0.010 ± 0.238
PRF-fit source offset from KIC position	0.171 ± 0.228	0.75	-0.149 ± 0.204	-0.083 ± 0.226
photometric centroid source offset	0.09 ± 0.15	0.55	0.02 ± 0.15	-0.08 ± 0.15

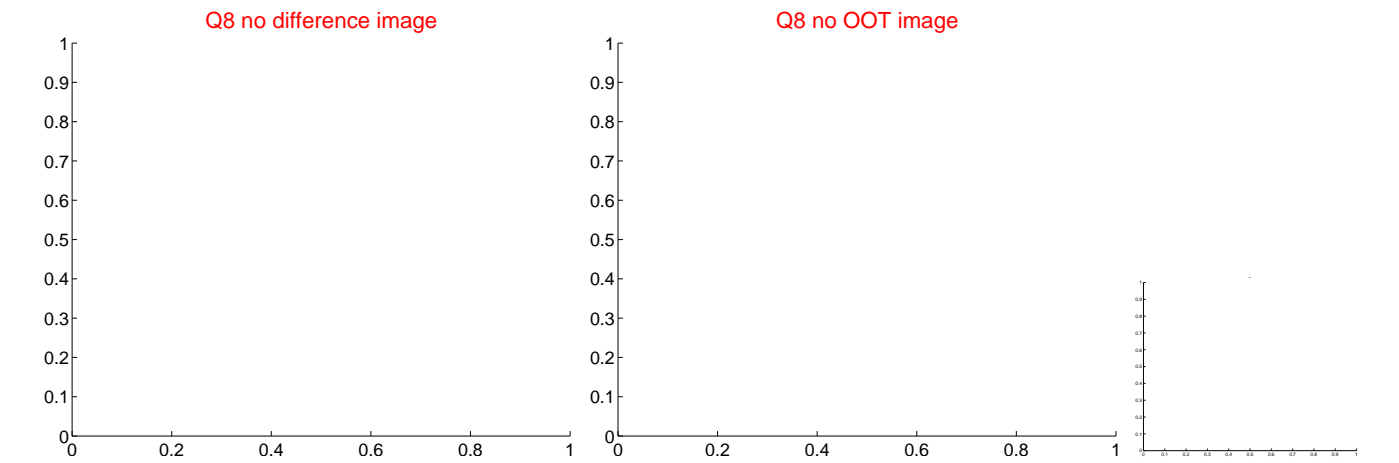
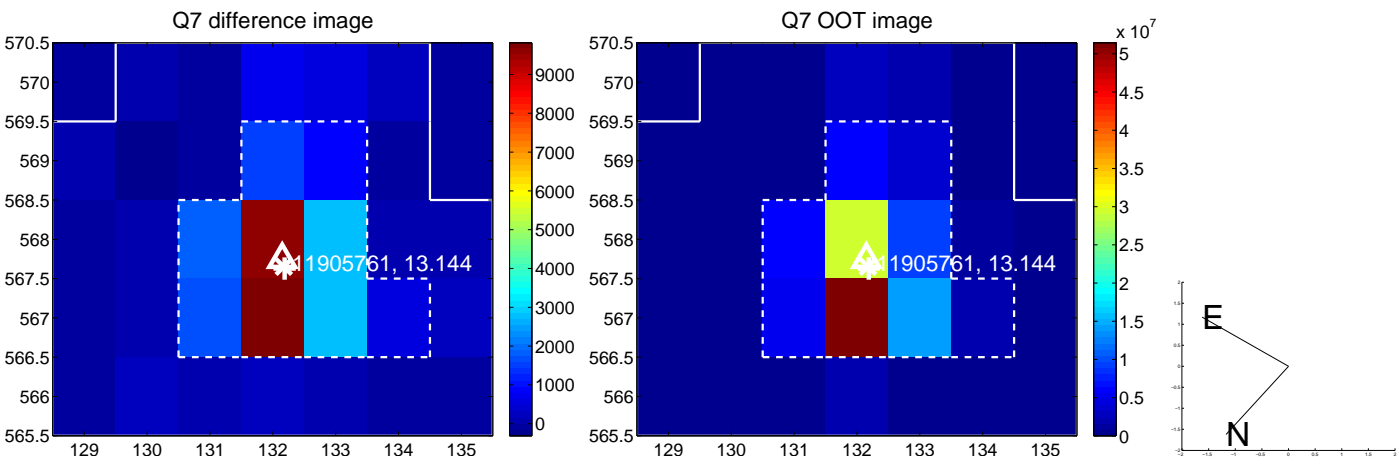
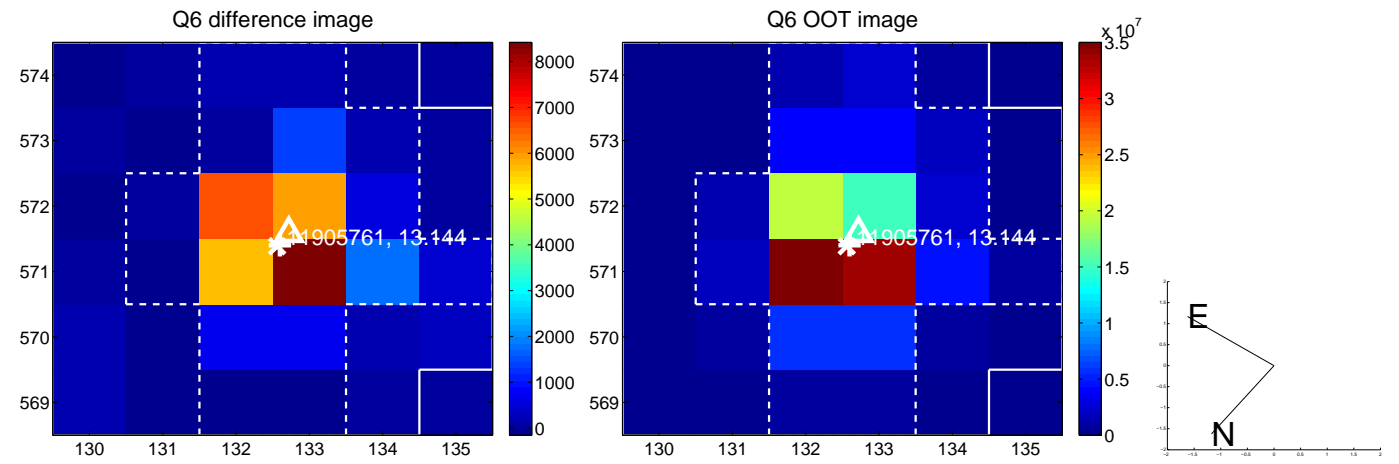
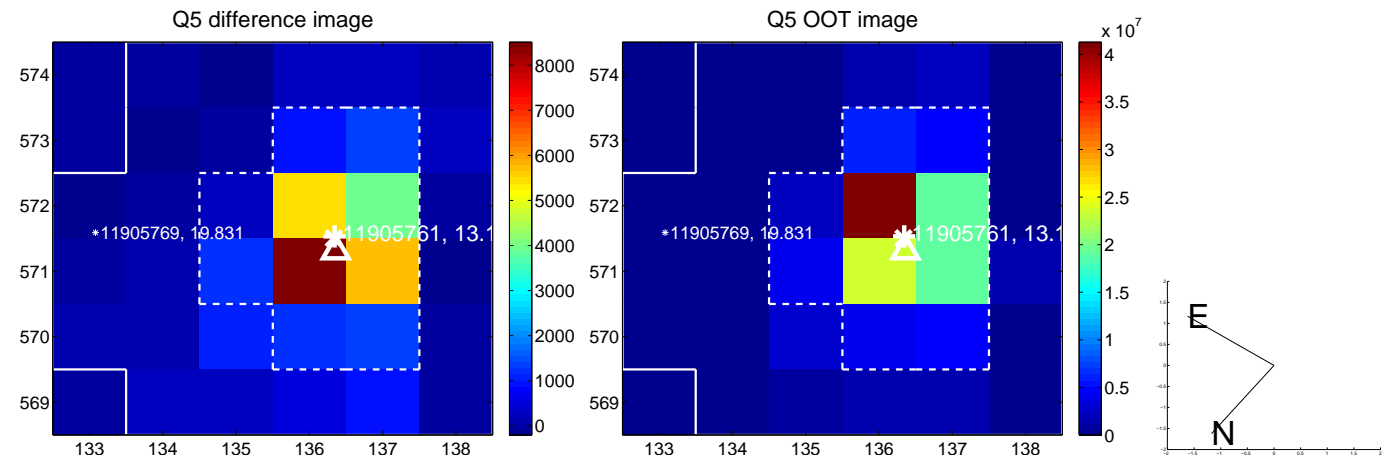


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

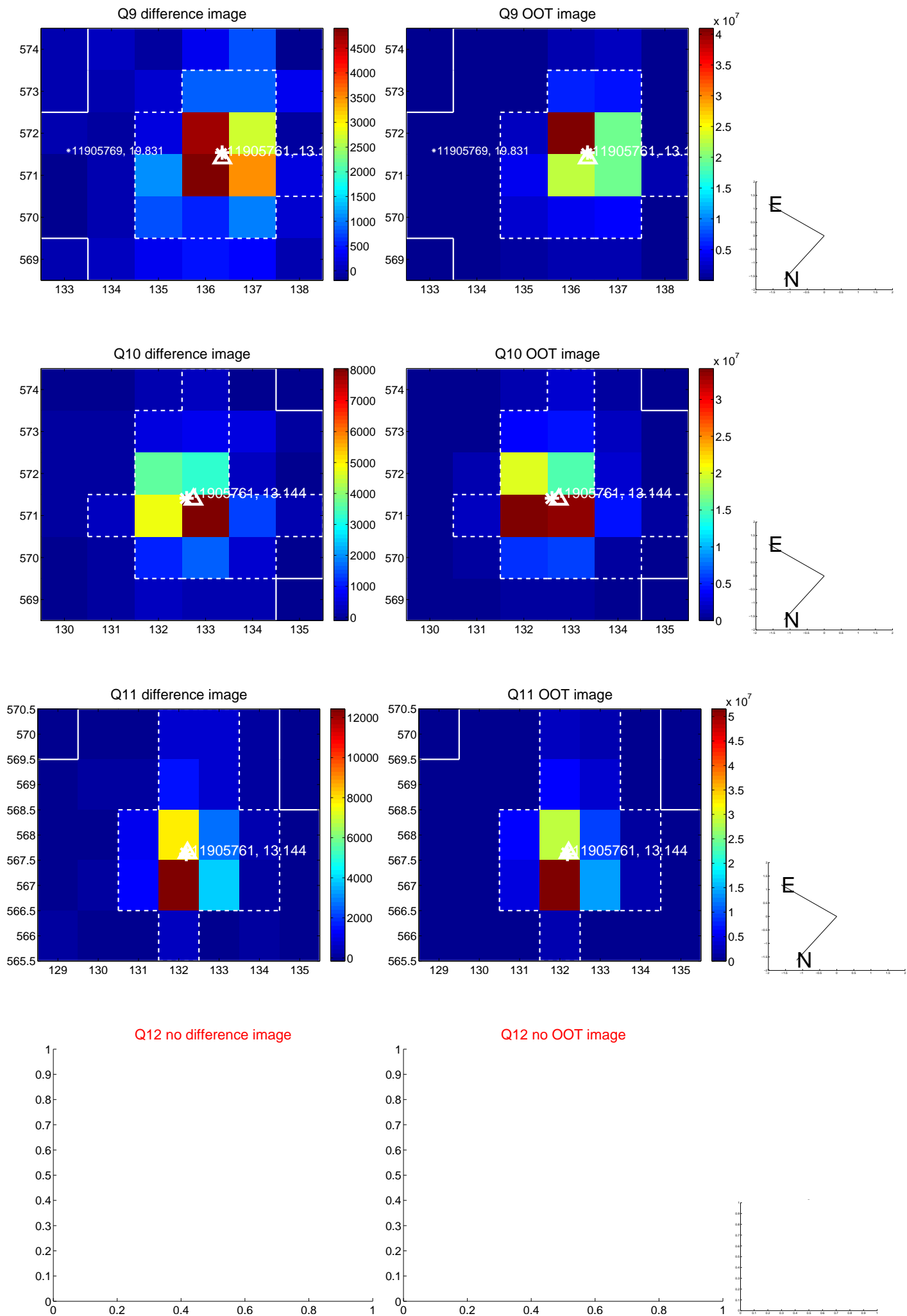
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



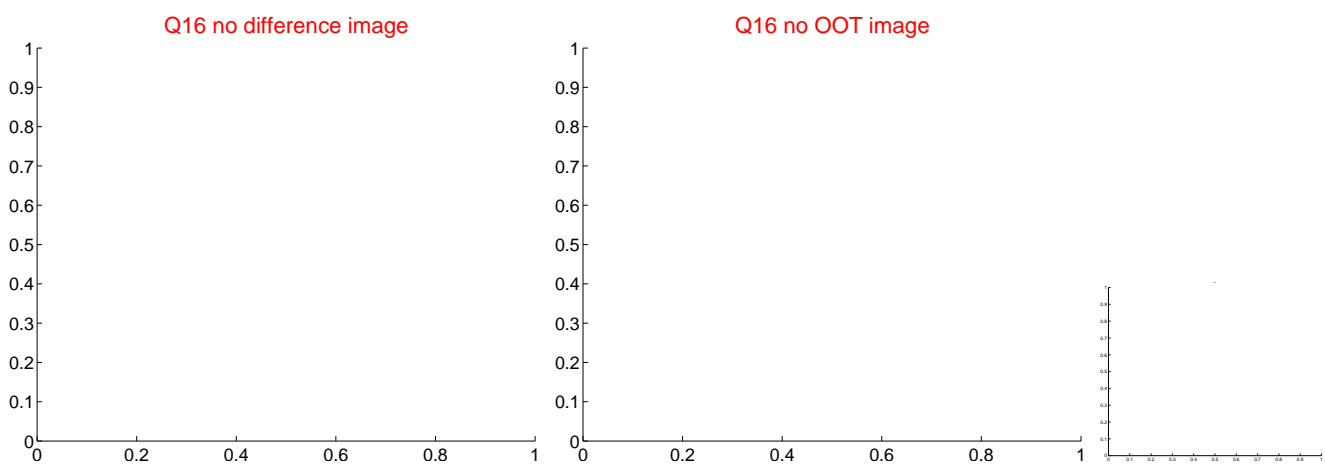
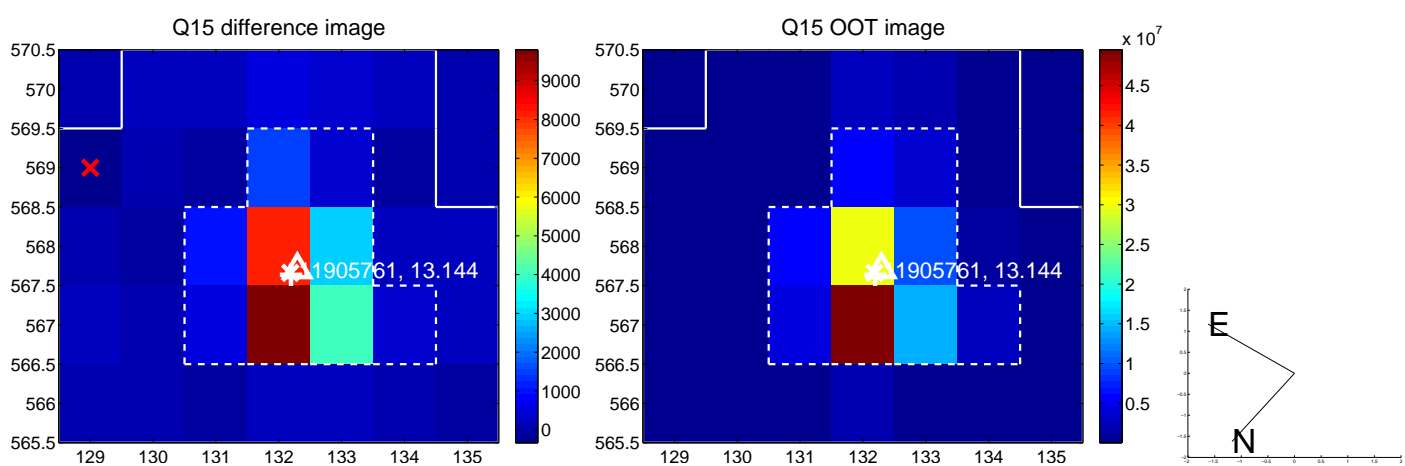
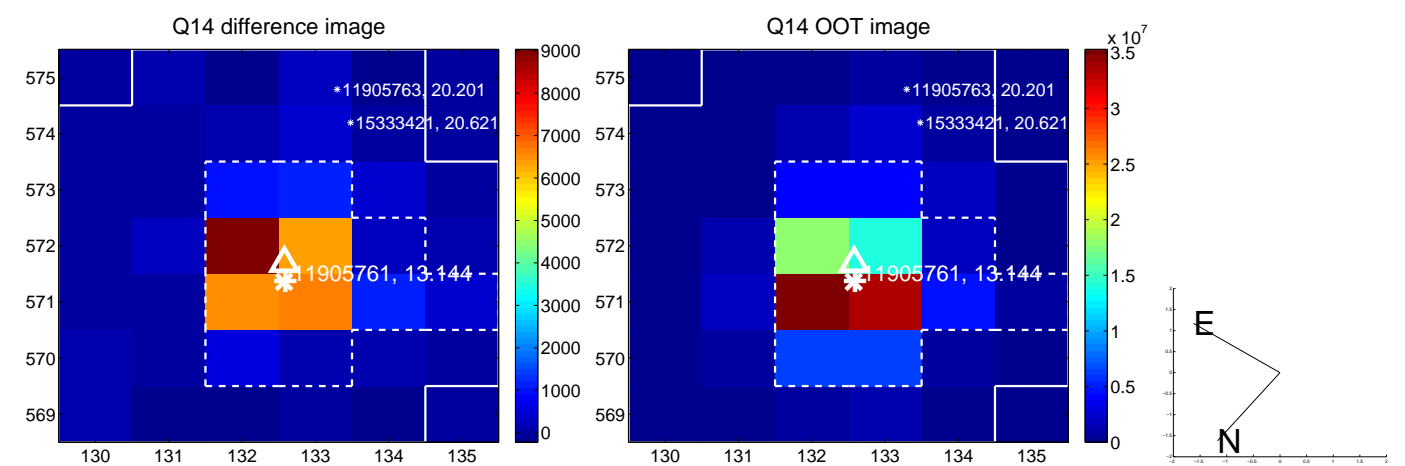
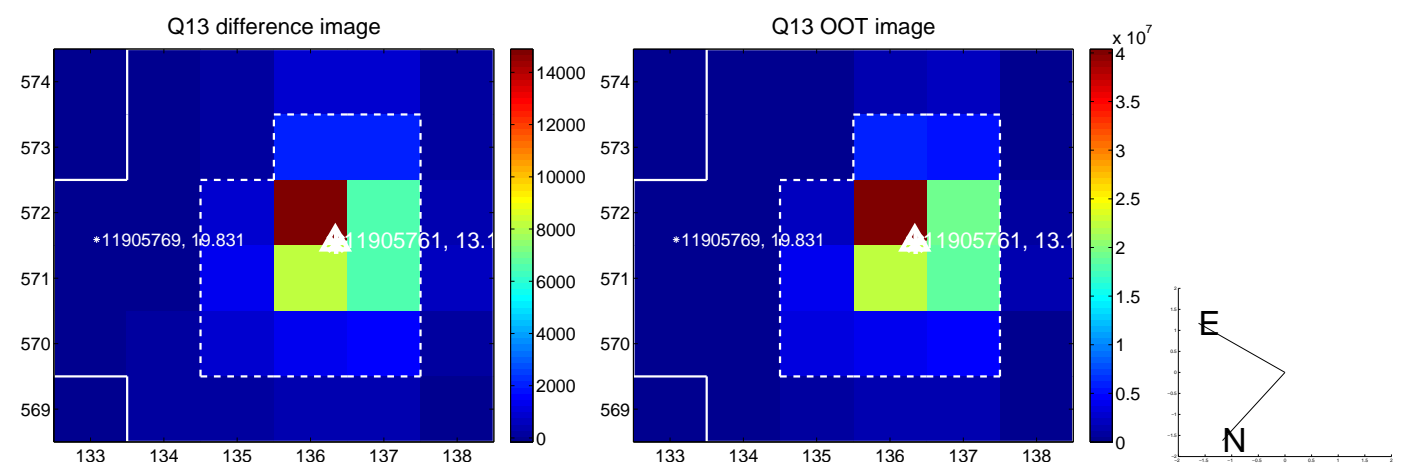
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



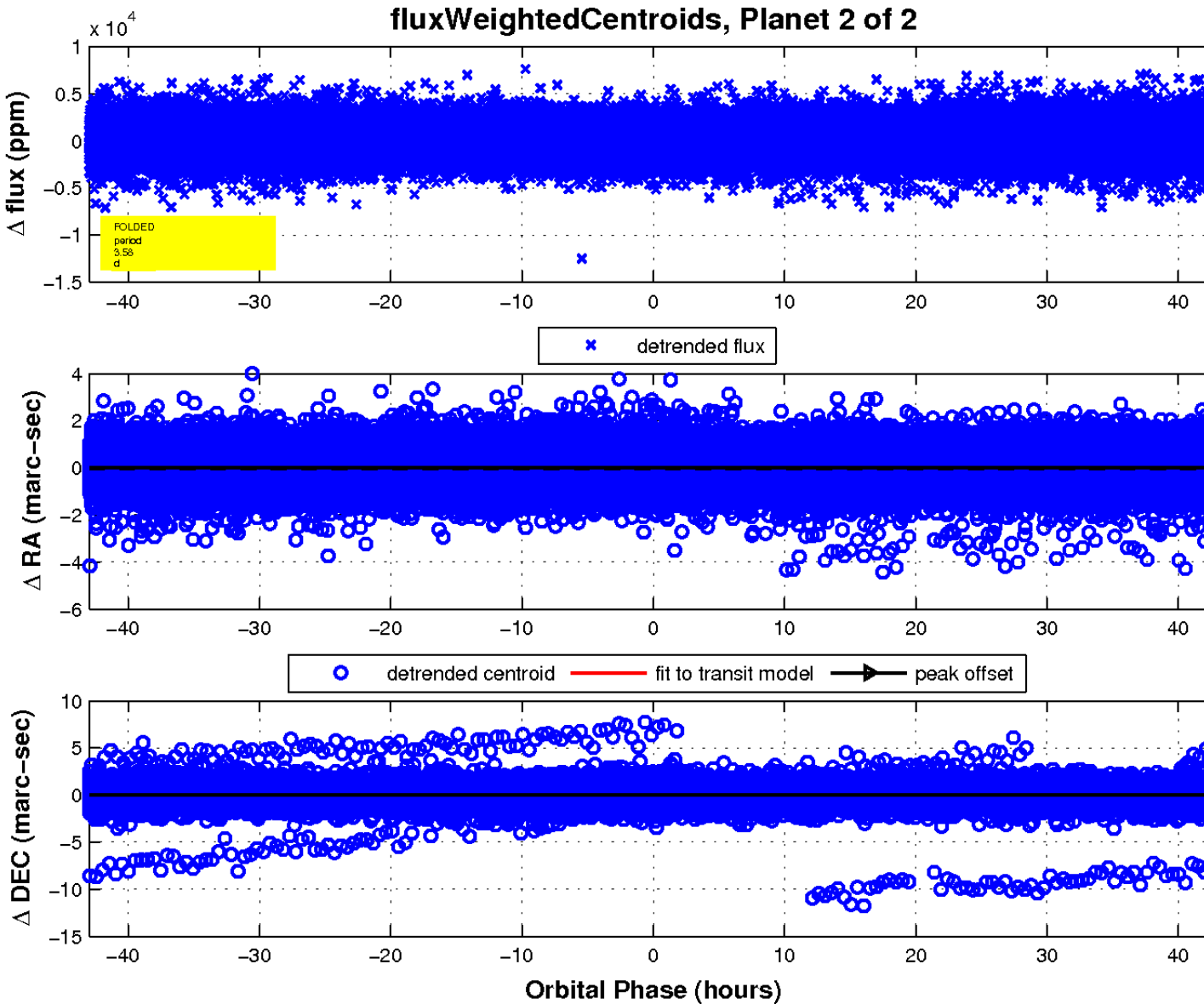
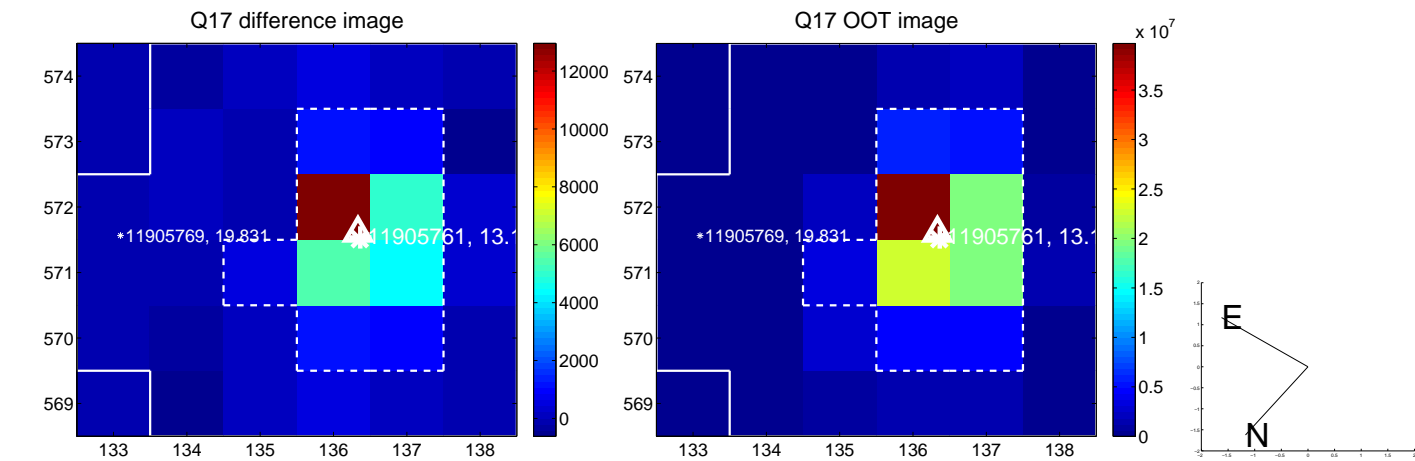
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

